Q3

HEART RATE + CADENCE + SPEED

Multi Sports Computer

CAT EYE®

Introduction

Thank you for purchasing the CATEYE Q3 Multi-Sport Computer.

The Q3 is a wristwatch heart rate monitor with additional cyclocomputer features to allow athletes to extensively organize and analyze their training data.

2.4 GHz-frequency digital wireless technology, the same technology used for everyday equipment such as wireless network is used for both the integrated cadence/speed sensor and the heart rate sensor. This technology practically eliminates all interference from external noise and cross-talk with other wireless users, providing you with stress-free riding.

Read this instruction manual thoroughly and understand the functions of the wristwatch before using it. Keep this manual in a safe place for future reference.

Important

- Always follow the instructions that are marked with "⚠ **Warning!!!**".
- No part of this manual may be reproduced or transmitted without the prior written permission of CatEye Co., Ltd.
- The contents and illustrations in this manual are subject to change without notice.
- If you have any questions or concerns about this manual, please contact CatEye at www.cateye.com.

About the manuals

Before use

See this section for installation of the unit on the bicycle, use of the heart rate sensor, wristwatch set-up, and the basic operation of the product.

Clock mode (CLOCK)

See this section to learn how to operate the Clock mode functions.

Sports mode (SPORTS)

See this section to learn how to operate the wristwatch functions.

Option mode (OPTION)

See this section to learn how to operate the training functions frequently used in Sports mode (countdown and interval functions), and how to set the HR target zone.

Data mode (DATA)

See this section to review and manage the recorded files.

Setup mode (SETUP)

See this section to change the wristwatch configuration.

About the CD-ROM supplied

The CD-ROM supplied contains the following information.
- **Quick start manual** (PDF file)
  Installing the unit on the bicycle and setting up the wristwatch are described using video.
- **Download software "e-Train Data™** (Windows version)**"**
  This software is used to transfer the measurement data to your personal computer, and then use various functions on the PC, such as a graph display (The optional "USB communication kit" is required).
- **Instruction manual** (PDF file)
  This manual can be viewed in PDF file (7 languages).

Use the CD-ROM in combination with this manual.

Contents

Proper use of the CatEye Q3

Please follow the following instructions for safe usage.

The meaning of icons in this manual:

⚠ Warning!!!: Sections marked with these icons are critical for safe use of the device. Be sure to follow these instructions.

Caution: Important cautionary notes on the use and operation of the Q3.

* Helpful tips are highlighted with asterisks.

The meaning of color on the screen in this manual:

Red: Indicates the displayed data is flashing.
Black/gray: Indicates the displayed data is on.

⚠ Warning!!!:

- **Pace maker users should never use this device.**
- **Cycling can be a dangerous sport. Always remember to pay attention to the road, traffic, and surroundings.**
- **Do not leave any battery within the reach of children, and dispose of them correctly. If a battery is swallowed, consult a doctor immediately.**

Caution:

- Regularly check the positions of the magnets and the speed/cadence sensors and make sure that they are securely mounted. If loose, tighten firmly to avoid falling and damage.
- Avoid leaving the unit in direct sunlight for extended periods of time.
- Do not disassemble the wristwatch, heart rate sensor, or speed sensor.
- Do not subject the wristwatch, heart rate sensor, or speed sensor to strong impact; take care also to prevent any of them from falling.
- Do not use paint thinner or rubbing alcohol to clean the unit. Use a damp cloth and use mild detergent if necessary.
- Stop using the unit if you have skin irritation with the HR strap or electrode pad.
- Do not twist or pull strongly the heart rate sensor.
- The heart rate sensor may deteriorate due to long-term use. Replace the heart rate sensor if it has frequent measurement errors.
- As a nature of liquid crystal displays, sunglasses with polarized lens may block the visibility.

Important

2.4 GHz digital wireless system

2.4 GHz-frequency digital wireless technology, which is the same technology used for wireless LAN, is used for both the integrated speed/cadence sensor and the heart rate sensor. This technology practically eliminates interference from external noise and cross-talk with other wireless computer users, and enables you to store highly reliable data. However, in a very rare occasions, objects and places may generate strong electromagnetic waves and interference, which may result in incorrect measurement. The following are potential sources of interference:

* Should be especially careful while synchronizing the sensor ID.
• TV, PC, radios, motors/engines, or in cars and trains.
• Railroad crossings and near railway tracks, around television transmitting stations and radar bases.
• Other wireless computers or digitally controlled lights.

Automatic recognition of the speed sensor ID

The speed sensor has its own ID, and the wristwatch measures in synchronization with the ID. Two speed sensor IDs can be registered to one wristwatch, which can automatically identify the 2 speed sensors once their IDs are registered in advance.

As a tire circumference is set to the speed sensor ID, wheel selection by manual operation is no longer required, which was necessary with conventional units.

* The speed sensor currently recognized is indicated with a sensor icon (📶1 or 📶2) on the screen.

Procedure of automatic recognition

When the wristwatch changes to the Clock mode by its power-saving function, and then returns to the Sports mode, automatic recognition of the speed sensor ID is performed through the following procedure.

1. The wristwatch searches a sensor signal from the speed sensor ID-1.

2. When the wristwatch receives a sensor signal from ID-1, it displays sensor icon 📶1 on the screen, and starts measurement.
When the wristwatch cannot receive any sensor signal from ID-1, it searches a sensor signal from ID-2.

3. When the wristwatch receives a sensor signal from ID-2, it displays sensor icon 📶2 on the screen, and starts measurement.
When the wristwatch cannot receive any sensor signal from ID-2, it searches a sensor signal from ID-1 again.

The wristwatch repeats synchronization through the procedure described above even if it fails in synchronization for some reason, such as communication failure; in such cases however, it takes time for recognition.

* When the wristwatch cannot receive any signal from the speed sensor in 5 minutes, the power-saving mode is activated, and the wristwatch changes to the Clock mode.

Switching the ID by manual operation

The speed sensor ID can be forcibly switched by manual operation from "Setting the tire circumference" in the Setup mode. Use this operation in the following cases.

• When the wristwatch cannot recognize the intended sensor signal, since the 2 registered speed sensors are nearby and both are sending a sensor signal.
• When you want to switch the speed sensor ID immediately.

* Once you switch the speed sensor ID by manual operation, the wristwatch continues to search only the speed sensor ID you switched when returning to the Sports mode. When the wristwatch cannot receive any sensor signal in 5 minutes, the power-saving mode is activated, and the wristwatch changes to the Clock mode. The wristwatch searches through the procedure of automatic recognition when it returns to the Sports mode.

Description of wristwatch and its parts

Wristwatch

Menu/enter button **(MENU)**

Mode-1/+ button *
(MODE1)

Start/stop/
select button **(SSS)**

Mode-2/- button *
(MODE2)

Lap button **(LAP)**
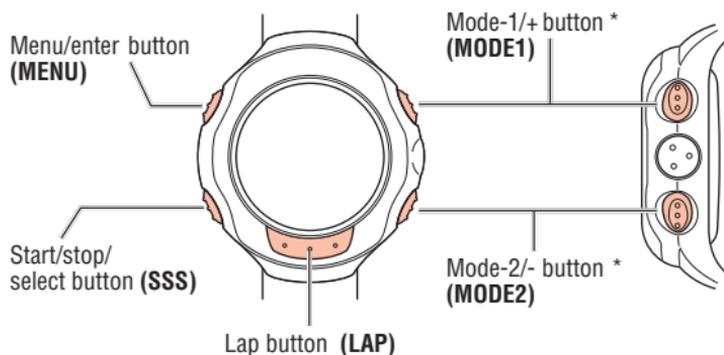
* Pressing and holding the **MODE1** or **MODE2** button lights up the backlight (Except in Setup mode).

Battery cover

Serial number

Belt

Accessories

Bracket
(for handlebar-mount)

Speed sensor
(SPEED/CADENCE)

Wheel magnet

Cadence magnet

Nylon ties (x7)

Heart rate sensor

HR strap

CD-ROM

This manual
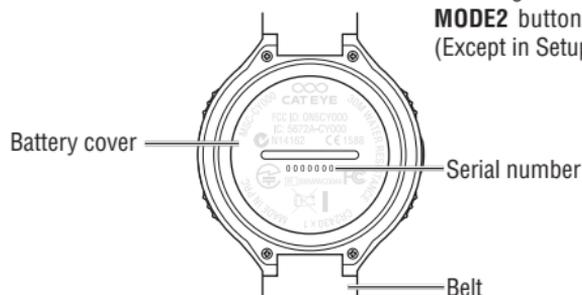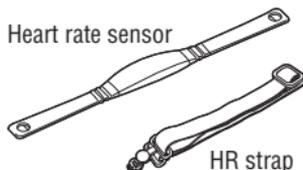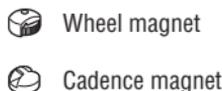
* See page 2 for the CD-ROM contents.

Screen display

Speed pace arrow (upper display)
The pace arrows show whether the current speed is faster (▲) or slower (▼) than the average speed.

Upper data display

Upper selected mode icon
Indicates the measurement data currently displayed in the upper data display.

Lower selected mode icon/unit
Indicates the unit along with the data currently displayed in the lower data display.

Lower data display

Heart rate pace arrow (middle display)
The pace arrows show whether the current heart rate is faster (▲) or slower (▼) than the average heart rate.

Icon	Description
⌇1 ⌇2	**Sensor icon** Displays the speed sensor currently synchronized.
km/h mph	**Speed unit** Flashes while the measurement (counting the elapsed time).
📡	**Alarm clock** Lights up when the alarm clock is on.
ⓔ	**Speed/Cadence sensor signal** Indicate Speed/Cadence sensor signal status. (page 22)
♥	**Heart rate sensor signal** Indicate Heart rate sensor signal status. (page 22)
◉	**Target zone** Lights up when the target zone is on, and flashes when it is out of the zone.
🔋	**Low battery alarm** Flashes when the battery of the wristwatch needs replacing with a new one.
bpm	**Heart rate unit**
AM PM	**AM/PM display** (lights up when using the 12-hour system)
LAP	**Lap indicator** Lights up while the lap data is displayed.
AT	**Auto-mode** Lights up when the auto-mode function is on.
%	**Zone, memory point utilization**
⌁	**Alarm** Lights up when the HR alarm sound feature is turned on.

Button navigation
Indicates the buttons available while setting up the wristwatch, or on the Setup screen.

MODE1

SSS   MODE2

Bicycle Installation

1 Mount the speed sensor and magnet

Speed sensor   Wheel magnet

Cadence magnet
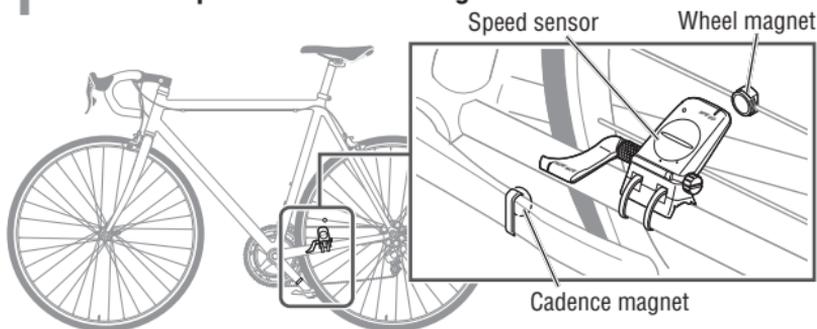
1-1.Lightly secure the speed sensor

Locate the speed sensor on the left (non-drive side) chain stay as shown above, and loosely secure it with the nylon ties.

* Do not tighten the nylon ties completely at this stage. Once a nylon tie is tightened, it cannot be pulled out.

Speed sensor

Nylon ties

Left chain stay
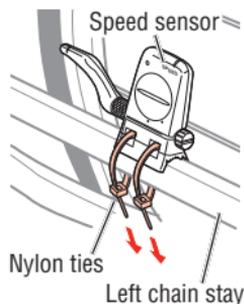
1-2.Mount the magnet

1. Loosen the set screws both on the **SPEED** side and **CADENCE** side of the speed sensor, and turn the sensor to the angle as shown on the right.

2. Temporarily secure the wheel magnet to the spoke so that it faces the sensor zone on the **SPEED** side.

3. Temporarily secure the cadence magnet inside the crank with nylon ties, so that it faces the sensor zone on the **CADENCE** side.

* Two magnets maybe stuck together inside the package, and appear as one magnet.

1. Pre-Install the wheel magnet

3. Set screw on the **CADENCE** side

Sensor zone

Sensor zone

2. Set screw on the **SPEED** side

3. Pre-install the cadence magnet

Nylon ties
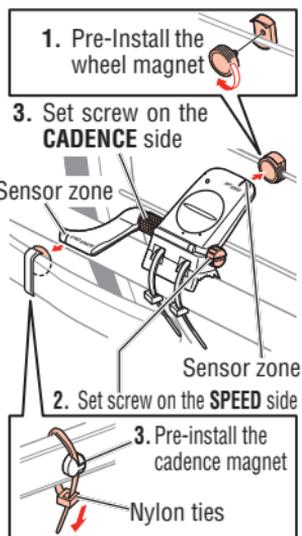
Before use

* When the speed sensor is not positioned properly in respect to the two magnets (in both Steps 2 and 3), move the speed sensor back and forth so that it is positioned properly. After you move the speed sensor, adjust the position so that the two magnets face the relevant sensor zone.

4. After adjustment, tighten the nylon ties firmly to secure the speed sensor.

1-3. Adjust the distance to the magnet

1. Adjust the distance between the wheel magnet and the **SPEED** side of the speed sensor to be about 3 mm. After adjustment, tighten the set screw on the **SPEED** side.

2. Adjust the distance between the cadence magnet and the **CADENCE** side of the speed sensor to be about 3 mm. After adjustment, tighten the set screw on the **CADENCE** side.

* For steel axle pedals, the cadence magnet can be installed onto the end face of the pedal axle. Make sure to remove the double-sided tape from the magnet when doing this.

About 3 mm

SPEED
CADENCE

Wheel magnet

About 3 mm
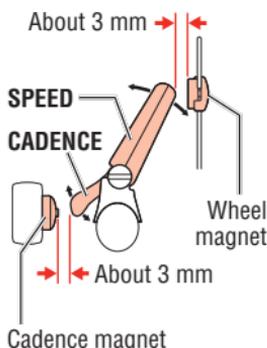
Cadence magnet

1-4. Securing various parts

Tighten the speed sensor, set screw, and magnet firmly, and check for any looseness.

☐ Speed/Cadence sensor nylon ties
☐ Speed and Cadence sensor screws
☐ Wheel magnet screw
☐ Cadence magnet

Cut extra length of the nylon tie with scissors.

2 Install the wristwatch onto the handlebar

Install the wristwatch to the handlebar with a bracket.

1. Check the correct direction of the bracket, and attach it to the handlebar.
Attach the bracket in the correct direction according to the handlebar size, and fix it using nylon ties.

Nylon ties

Bracket

Bracket

Front

Handlebar

Nylon ties

Standard handlebar

Front

Oversize bar

Front
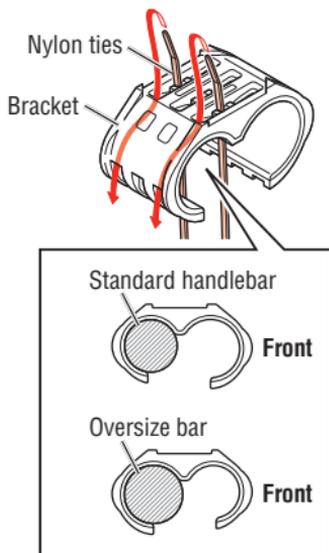
Handlebar

* Put the nylon ties through the bracket before you attach it to the handlebar.

Cut extra length of the nylon tie with scissors.
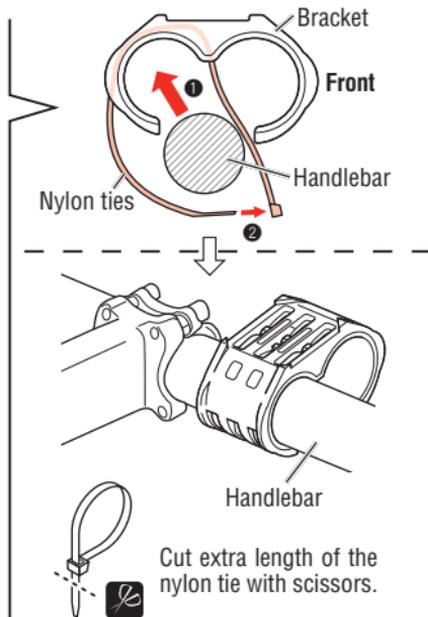
2. Wrap the wristwatch around the bracket.
Firmly fasten the belt so that the wristwatch will not come off.

Wristwatch

Front

Handlebar   Belt
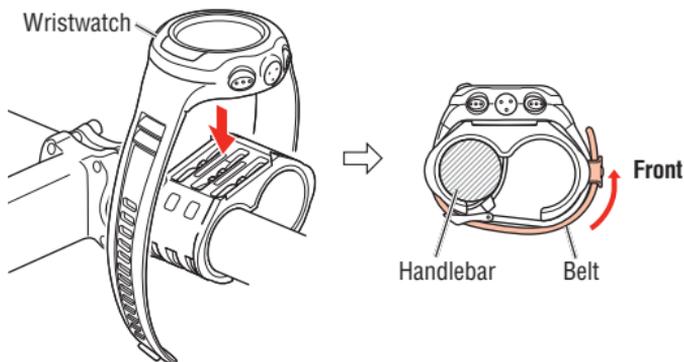
Before use

Heart rate sensor

Heart rate is measured when the heart rate sensor is worn on the chest.

Before wearing the heart rate sensor

⚠ **Warning!!!: This product must NOT be used by those who have a pacemaker.**

- To avoid measurement errors, it is recommended to moisten the electrode pads with water.
- If your skin is ultra-sensitive, the electrode pad may be moistened with water and worn over a thin undershirt.
- Chest hair may interfere with the measurement.

Heart rate sensor
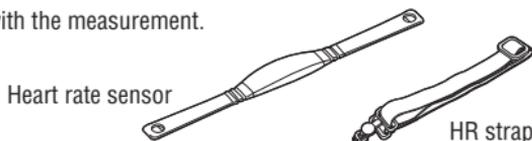
HR strap

Wearing the heart rate sensor

1. Insert the HR strap hook to the hole on the heart rate sensor until it clicks.
2. Wear the heart rate sensor with the HR strap, and adjust the length of the HR strap to fit your chest size (under bust). Fastening the strap too tightly may cause discomfort.
3. Insert the HR strap hook to the other hole on the heart rate sensor until it clicks.
4. For removal, hold near the hole on the heart rate sensor and the hook, and twist off.

Heart rate sensor

Hook
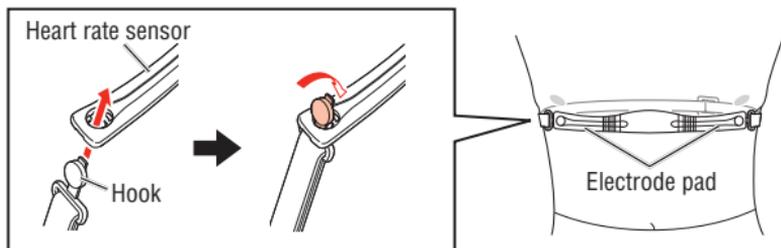
Electrode pad

* Ensure that the rubber part of the electrode pad is in direct contact with the body.
* Wearing the heart rate sensor when your skin is dry or on top of your undershirt may produce measurement errors. To avoid errors, moisten the rubber part of the electrode pad.

Before use

Preparing the wristwatch

Wristwatch's basic items must be set up before using it.

Removing the insulation sheet

When you use the unit for the first time after purchasing, remove the insulation sheet under the battery.

❶ Open the battery cover of the wristwatch using a coin, etc.

❷ Turn the inner cover to the open position using a coin, remove this, and remove the insulation sheet under the battery.

* Do not turn the inner cover excessively. Otherwise, the tab may be damaged.

❸ Replace the battery, and turn the inner cover to the closed position. Check that the cut-out portion of the inner cover faces the pin, and the 2 tabs are fixed.

❹ Press the **AC** button beside the inner cover using a tool with a pointed tip.

❺ Check that an o-ring is installed to the groove on the wristwatch, and firmly close the battery cover.

Battery cover
Open
Close
Inner cover
Open position
Tab
CR2430
Closed position
Pin
Insulation sheet
Cut-out portion
Pin
O-ring
AC button
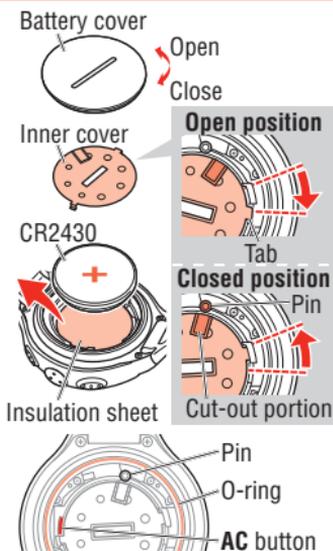
1 Restarting

When using the unit for the first time after purchasing, or after replacing batteries, restart the wristwatch to make it work properly.

* The wristwatch and each sensor ID have been checked at the factory.

1. Simultaneously press and hold the **MENU**, **SSS**, **MODE1**, and **MODE2** buttons on the wristwatch for about 4 seconds.

"**FACTORY DEFAULT**" is displayed.

MENU ▶ ◀ MODE1
SSS ▶ ◀ MODE2 (Simultaneously press)

* When "**FACTORY DEFAULT**" is not displayed on the screen, the button operation has not been completed properly. Simultaneously press and hold the 4 buttons again until the display changes.

2. Select "**NO**".

When "**NO**" is displayed on the screen, confirm with the **SSS** button.

The backlight of the display lights up and a buzzer sounds, then the display is switched to the clock/date setting screen. Proceed to the next set-up item, "Setting the clock/date".

YES ↔ NO : ◀ MODE1
◀ MODE2 (or)   Confirm : SSS ▶

Restarting

FACTORY
NO
DEFAULT

Formatting

```
FACTORY
YES
DEFAULT
```

* Select "**YES**" by pressing the **MODE1** or **MODE2** button for the formatting operation. As the formatting operation deletes all data, select "**NO**" for the restarting operation. See "Formatting/Restarting operation" on page 20 for differences between the formatting and restarting operations.

* The restarting operation will be cancelled if no button has ben pushed for 3 minutes and the wristwatch will enter the Clock screen automatically. In this case, press the 4 buttons simultaneously and do the restart operation again.

2 Setting the clock/date

Set the current time and date.

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Select the clock display format.

Select "**24h**" (24 hour) or "**12h**" (12 hour) pressing the **MODE1** or **MODE2** buttons, and confirm with the **SSS** button.

Display format

```
24h
0.00₀₀
```

24h ↔ 12h : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

2. Enter the "Hour" and "Minute".

Enter the "Hour" pressing the **MODE1** to increase, and **MODE2** button to decrease the flashing value, confirm with the **SSS** button, and then enter the "Minute" in the same way.

Hour

```
24h
0:00₀₀
```
Minute

Edit value : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶
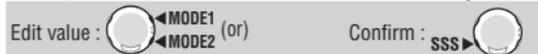
3. Select the date display format.

Select the date display format from **YYMMDD** (Year/Month/Day), **DDMMYY** (Day/Month/Year) , and **MMDDYY** (Month/Day/Year) pressing the **MODE1** or **MODE2** buttons, and confirm with the **SSS** button.

```
0:00₀₀
YY.MM.DD
```
Display format

Switch the display : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

4. Enter the "Year", "Month" and "Day".

Enter the "Year", "Month" and "Day" in the display order selected in Step 3 using the **MODE1** to increase, and **MODE2** button to decrease the flashing value, and confirm with the **SSS** button. For "Year", enter the last 2 digits of the year.

```
0:00₀₀
10.01.01
```
YY/MM/DD

Edit value : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶
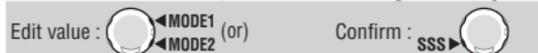
5. After you set the clock/date, press the **MENU** button to complete the restarting operation, and switch to the Clock mode.

To Clock mode (setup is completed): **MENU** ▶
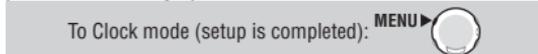
3 Switching to the Setup mode

Switch the wristwatch from the Clock mode to the Setup mode, and set the tire circumference and the measurement unit.

1. Press and hold the **MENU** button in the Clock mode to display "**SETUP MENU**" on the screen.
It switches to "**CLOCK DATE**" automatically.

Switch modes : **MENU ▶▶** ◯ (press & hold)

CLOCK

DATE

* Unless you perform an operation in the Setup mode within 3 minutes, it returns to the Clock mode. In such cases, any change is not reflected.

4 Tire circumference input

In the Setup mode "Setting the tire circumference", enter the tire circumference of the bicycle to ❄1 (Sensor 1) in millimeters.

* See "Tire circumference" on the next page for reference.
* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Press the **MODE1** button twice to switch to "**TIRE**", and confirm with the **SSS** button.

Switch screen : ◯ **◀MODE1** **◀MODE2** (or)   Confirm : **SSS ▶** ◯

TIRE
2096

2. When ❄1 and "**S/ID:1**" are flashing, confirm with the **SSS** button.
Change the tire circumference of Sensor 1.

❄1 ↔ ❄2 : ◯ **◀MODE1** **◀MODE2** (or)   Confirm : **SSS ▶** ◯

TIRE
2096
S/ID:1

3. Enter the last 2 digits of the tire circumference by pressing the **MODE1** or **MODE2** button, and move digits by pressing the **SSS** button.
Then enter the first 2 digits in the same way.

Increase/decrease: ◯ **◀MODE1** **◀MODE2** (or)   Move digits: **SSS ▶** ◯

TIRE
2096
S/ID:1

4. Pressing the **MENU** button confirms the tire circumference, and returns to the Setup mode "**TIRE**".

Setup is completed: **MENU ▶** ◯

* To use ❄2 (Sensor 2), set the tire circumference of Sensor 2 according to the Setup mode "Searching for sensor ID" on page 52, after you complete "Preparing the wristwatch".

Before use

Tire circumference

You can find the tire circumference (L) of your tire size in the tire circumference reference table below, or actually measure the tire circumference (L) of your bicycle.
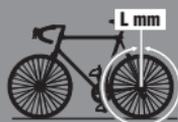
How to measure the tire circumference (L)

For the most accurate measurement, do a wheel roll out. With the tires under proper pressure, place the valve stem at the bottom. Mark the spot on the floor and with the rider's weight on the bike, roll exactly one wheel revolution in a straight line (until the valve comes around again to the bottom). Mark where the valve stem is and measure the distance on the ground in millimeters.

* For your reference, use the tire circumference table below.

Tire circumference reference table

ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)
47-203	12 x 1.75	935	32-559	26 x 1.25	1950	30-622	700 x 30C	2146
54-203	12 x 1.95	940	37-559	26 x 1.40	2005	32-622	700 x 32C	2155
40-254	14 x 1.50	1020	40-559	26 x 1.50	2010		700C Tubular	2130
47-254	14 x 1.75	1055	47-559	26 x 1.75	2023			
40-305	16 x 1.50	1185	**50-559**	**26 x 1.95**	**2050**	35-622	700 x 35C	2168
47-305	16 x 1.75	1195	54-559	26 x 2.10	2068	38-622	700 x 38C	2180
54-305	16 x 2.00	1245	57-559	26 x 2.125	2070	40-622	700 x 40C	2200
28-349	16 x 1-1/8	1290	58-559	26 x 2.35	2083	42-622	700 x 42C	2224
37-349	16 x 1-3/8	1300	75-559	26 x 3.00	2170	44-622	700 x 44C	2235
32-369	17 x 1-1/4(369)	1340	28-590	26 x 1-1/8	1970	45-622	700 x 45C	2242
40-355	18 x 1.50	1340	37-590	26 x 1-3/8	2068	47-622	700 x 47C	2268
47-355	18 x 1.75	1350	37-584	26 x 1-1/2	2100	54-622	29 x 2.1	2288
32-406	20 x 1.25	1450		650C Tubular 26 x 7/8	1920	60-622	29 x 2.3	2326
35-406	20 x 1.35	1460						
40-406	20 x 1.50	1490	20-571	650 x 20C	1938			
47-406	20 x 1.75	1515	23-571	650 x 23C	1944			
50-406	20 x 1.95	1565	25-571	650 x 25C 26 x 1(571)	1952			
28-451	20 x 1-1/8	1545						
37-451	20 x 1-3/8	1615	40-590	650 x 38A	2125			
37-501	22 x 1-3/8	1770	40-584	650 x 38B	2105			
40-501	22 x 1-1/2	1785	25-630	27 x 1(630)	2145			
47-507	24 x 1.75	1890	28-630	27 x 1-1/8	2155			
50-507	24 x 2.00	1925	32-630	27 x 1-1/4	2161			
54-507	24 x 2.125	1965	37-630	27 x 1-3/8	2169			
25-520	24 x 1(520)	1753	18-622	700 x 18C	2070			
	24 x 3/4 Tubular	1785	19-622	700 x 19C	2080			
			20-622	700 x 20C	2086			
28-540	24 x 1-1/8	1795	**23-622**	**700 x 23C**	**2096**			
32-540	24 x 1-1/4	1905	25-622	700 x 25C	2105			
25-559	26 x 1(559)	1913	28-622	700 x 28C	2136			

5 Selecting measurement unit

Select the speed unit.

1. Press the **MODE1** button twice to switch to "**UNITS**", and confirm with the **SSS** button.

Switch screen : ◀MODE1 ◀MODE2 (or)   Confirm : **SSS**▶

2. Select the speed unit by pressing the **MODE1** or **MODE2** button, and confirm with the **SSS** button.

km/h ↔ mph : ◀MODE1 ◀MODE2 (or)   Confirm : **SSS**▶

Speed unit
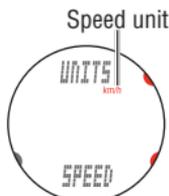
3. Pressing the **MENU** button confirms the measurement unit, and returns to the Setup mode "**UNITS**".
Now, the wristwatch setup is completed. Press the **MENU** button again to switch to the Clock mode screen.

To the mode top/switch the mode : **MENU**▶

6 Switching to the Sports mode

Switch the wristwatch from the Clock mode to the Sports mode for the operation test of the speed sensor and heart rate sensor.

1. Press the **MENU** button in the Clock mode to display "**SPORTS MENU**" on the screen.
It switches to the measurement screen automatically.

Switch modes : **MENU**▶

Before use

7 Operation test

* It may take up to approximately 2 minutes to display the screen because the wristwatch checks the sensor when switching to Sports mode.
* If the signal icon 🖥 or ❤ on the measurement screen is turned off, press the **MODE1** or **MODE2** button to turn it on.

Speed sensor (SPEED side)

1. Raise the rear wheel and spin the wheel.

2. When the speed is displayed on the screen, it is operating normally.
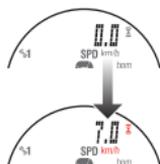
Speed sensor (CADENCE side)

1. Turn the crank.

2. When the cadence is displayed on the screen, it is operating normally.

Heart rate sensor

1. Wear the heart rate sensor (page 12).

2. When the heart rate is displayed on the screen, it is operating normally.

* Heart rate sensor can also be activated by rubbing both electrode pads with thumbs. This method cannot be used to measure the heart rate accurately, but is used as a simple method for testing the sensor/wristwatch communication and searching for the sensor ID.

Electrode pad
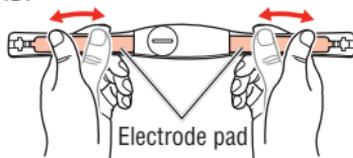
Important: When the speed, cadence, and/or heart rate are/is not displayed, possible causes are as follows.

Speed and cadence are not displayed.

Check items	Remedy
Is the Speed and Cadence sensor icon on 𝔖 ?	If 𝔖 icon is off, the wristwatch cannot receive any data. Press the **MODE1** or **MODE2** button to cancel the transmission sleep mode (page 22).
Check whether the distance between the speed/cadence sensor and the magnet is too large.	Adjust the position of the speed/cadence sensor and that of the magnet correctly. (See "Bicycle Installation" on page 9.)
Is the sensor zone of the speed/cadence sensor aligned the center of the magnet?	
Has the power-saving mode been activated, entering Clock mode?	Press the **MENU** button to switch to Sports mode.
The display may be delayed depending on the wireless transmission condition.	Check whether any speed signal is received by spinning the wheel for a while.
Have you performed the formatting operation?	The sensor ID synchronized at the factory is initialized by formatting. Synchronize the speed sensor ID, according to the Setup mode "Searching for sensor ID" (page 52).

Heart rate is not displayed.

Check items	Remedy
Is the Heart rate sensor icon on ♥ ?	If ♥ icon is off, the wristwatch cannot receive any data. Press the **MODE1** or **MODE2** button to cancel the transmission sleep mode (page 22).
Has the power-saving mode been activated, entering Clock mode?	Press the **MENU** button to switch to Sports mode.
Is the heart rate sensor attached securely to your body?	Adjust the electrode pad with its rubber surface to have good contact with the body.
Dry skin (particularly in winter)	Slightly moisten the electrode pad of the heart rate sensor.
Is the Heart rate sensor being worn correctly?	To wear the electrode pad correctly, follow the instructions for wearing the heart rate sensor (page 12).
Have you performed the formatting operation?	The sensor ID synchronized at the factory is initialized by formatting. Synchronize the heart rate sensor ID, according to the Setup mode "Searching for sensor ID" (page 52).

Before use

Formatting/Restarting operation

There are 2 different wristwatch set-up operations; formatting and restarting operations. Follow the appropriate one depending on the situation.

Formatting : When you want to delete all data and the setup of the wristwatch.

Restarting : When you use the unit for the first time after purchasing, or after replacing batteries, or an error is displayed.

* In the restarting operation, the following data are retained.

SPORTS MENU	Date	
OPTION MENU	Setting the target zone	
DATA MENU	• Saved file data • Ride data • Log data	
SETUP MENU	• Alarm clock setting • Tire circumference and Sensor currently selected • Sensor ID • Measurement unit	• Record interval • Auto-mode • Training function • Sound setting

Flows of the formatting and restarting operations

The formatting and restarting procedures are as follows.

For restarting:

Restarting operation (page 13)

↓

Setting the clock/date (page 14)

* The date when last executed the restarting operation will be initially displayed.

For formatting:

Formatting operation (page 13)

↓

Setting the clock/date (page 14)

↓

Tire circumference input (page 15)

↓

Selecting measurement unit (page 17)

↓

Clock mode
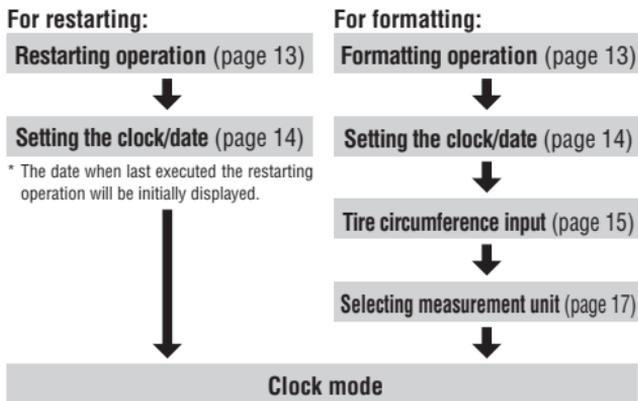
* In the case of the formatting operation, you can set the "tire circumference" and "measurement unit" sequentially after you set the "clock/date". Each set-up procedure is described on the page referenced.

After you complete the set-up, be sure to synchronize the sensor ID according to the Setup mode "Searching for sensor ID" (page 52).

Before use

Basic operation of the wristwatch

Switching between modes

The wristwatch has 4 types of mode functions and the Setup mode. "**CLOCK MENU**", "**SPORTS MENU**", "**OPTION MENU**", and "**DATA MENU**" are alternatively selected in sequence by pressing the **MENU** button. Select the screen of your choice to proceed to the mode screen automatically.

Clock mode (page 23)
Displays the clock.
This mode is used to set on/off of the alarm clock.

* Press and hold the **MENU** button in the Clock mode or Sports mode to switch to "**SETUP MENU**".

(press & hold)

To the previous mode screen

Setup mode (page 48)
This mode is used to edit values and setup for less frequently used items, such as sound and wheel circumference.

Sports mode (page 24)
This measurement screen is used as a cyclocomputer and/or heart rate monitor.

Option mode (page 35)
This mode is used to edit option setup values often used while riding bicycle such as zones, and count down.

Data mode (page 38)
This mode is used to check the data saved and/or import them to your PC.

Before use

Backlight

Pressing and holding the **MODE1** or **MODE2** button illuminates the display for about 3 seconds (Except in the Setup mode).

* Pressing any button while backlight is still on extends the illumination for another 3 seconds.

MODE1 (or)
MODE2
(press & hold)

Power-saving mode

Transmission sleep mode

When the wristwatch does not receive any data from the speed sensor or heart rate sensor for 5 minutes, each sensor will enter the transmission sleep status to save battery power. No sensor signal can be received in the transmission sleep status. To restart measuring, press the **MODE1** or **MODE2** button to recover from transmission sleep. The signal transmission status of each sensor can be checked with the relevant signal icon and the numerical value "---" display.

Speed sensor signal icon

The speed sensor is in transmission sleep. Displays the symbol "---".

- 〰 ♥ (flashing) : Receiving sensor signal (under operation)

- 〰 ♥ (constant) : Stand-by for sensor signal (searching for sensors)

- 〰 ♡ (off) : Transmission sleep. Displays the symbol "---".

* Transmission sleep is set separately for the speed sensor and the heart rate sensor. Accordingly, if the bicycle is stopped for over 5 minutes with the heart rate sensor worn, only the speed sensor goes into transmission sleep. When resuming the ride, speed/cadence sensor must be re-activated in order to display necessary data.

Heart rate sensor signal icon

The heart rate sensor is in transmission sleep. Displays the symbol "---".

* When either the speed sensor or the heart rate sensor is in transmission sleep, the display remains in the Sports mode; however, when both sensors go into transmission sleep, the wristwatch switches to the power-saving mode.

Saving the power of the wristwatch

When the wristwatch does not receive any data from both the speed and heart rate sensors for 5 minutes, it will switch to Clock mode automatically. Press the **MENU** button to return to Sports mode and continue measuring. For details, see "Switching between modes" on page 21.

* Even if the power-saving mode is activated, data not reset are saved in the wristwatch.

FRI

0:00.00

10.01.01

Clock mode

Before use

ENG-22

Clock mode (CLOCK)

CLOCK

MENU

Functions in Clock mode

Displays the current time, date, and day of the week.

Display data in Clock mode

FRI

0:00 00

10.01.01

Displays the current day of the week.

Displays the current time in the 12- or 24-hour format.

Displays the current date.
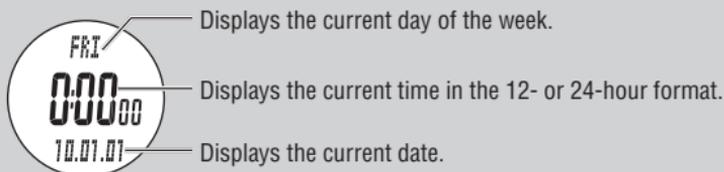
* For setting the time and date, see the Setup mode "Setting the clock/date" (page 49).

Alarm clock mode 📢

Indicates with an alarm sound when the current time reaches any pre-set time. When it reaches a predetermined time, the wrist-watch switches to Clock mode, and sounds an alarm for 20 seconds regardless of the mode displayed. Press any button on the wristwatch to stop the alarm.

* Press and hold the **MODE1** button for 3 sec in the Clock mode to turn on/off the alarm clock. The icon 📢 appears on the screen when the alarm clock is on.
* For setting the alarm clock, see the Setup mode "Setting the alarm clock" (page 50).

Alarm clock icon

FRI

0:00 00

10.01.01

Alarm clock on/off

◄◄ MODE1

(press & hold for 3 sec)

Clock mode

Sports mode (SPORTS)

Function in Sports mode

The Sports mode is for measurement using the cyclocomputer and heart rate monitor functions. 4 types of data such as the heart rate, speed, and cadence are displayed on the screen. These data can be switched by pressing the **MODE1** or **MODE2** button.

The displayed data are as follows.

* Measurement is maintained even if switched to another mode.

Upper and middle display data (Switch using the MODE1 button)

Upper display : Displays data related to the speed.
Middle display (left) : Displays data related to the heart rate.
Middle display (right) : Displays data related to the cadence.

Switch pressing the MODE1 button

Current speed → Average speed → Maximum speed

Heart rate/Cadence → Average heart rate/Average cadence → Maximum heart rate/Maximum cadence

To the setting count-down screen in Option mode (page 35)
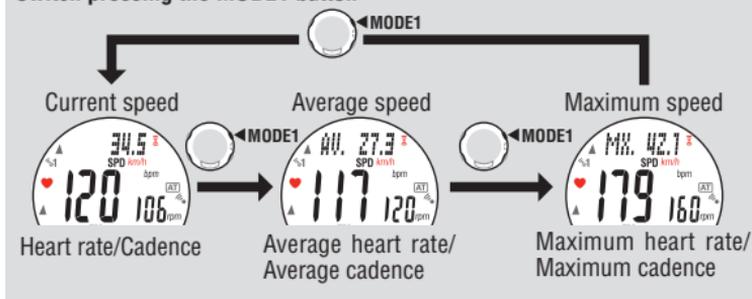
Lower display data
(Switch using the MODE2 button)

Displays additional ride data.

When the measurement is stopped

Shortcut[2]

Switch pressing the MODE2 button

(press & hold for 3 sec)

Elapsed time → Trip distance → Training function[1]

Clock ← Calorie Consumption ← Lap timer
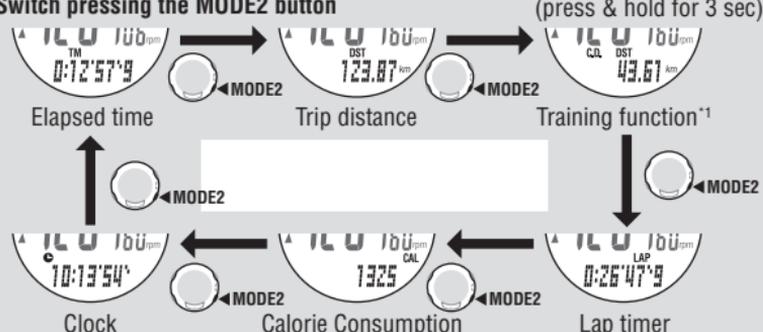
*1 The training function screen displays one of the following; countdown distance, countdown time, or interval. For details, see "Training function (countdown function and interval function)" on page 31.

*2 When measurement is stopped in the training function screen, shortcut operation (press and hold the **MODE2** button for 3 sec.) moves to the Setup mode "Setting the training function" (page 35).

Starting/Stopping measurement

"**km/h** [**mph**]" icon flashes during speed measurement. Initially, the auto-mode function which starts or stops measurement automatically in sync with the bicycle motion is ON. Auto measurement is switched to manual measurement and vice versa by ON/OFF operation in the auto-mode. For details, see the Setup mode "Setting the auto-mode" (page 57). The maximum speed, maximum heart rate, and maximum cadence are updated regardless of starting/stopping the measurement.

* To use this unit as a heart rate monitor, start/stop the measurement using the **SSS** button in the manual measurement.
  When the auto-mode is on, you cannot start the measurement.

AT icon

Auto-mode (automatic measurement) [AT]

When the auto-mode is on, [AT] appears on the screen. The wristwatch detects the wheel spinning, and starts/stops the measurement automatically.

* When the transmission is stopped and Sensor signal icons ⧖ and ♥ are off, the measurement will not start even after the bicycle starts. If a bicycle is stopped for more than 5 minutes or if heart rate sensor is either far from the bicycle or off the body, it will go into sleep. This normally happens when taking a rest during the ride. To recover from the transmission sleep, press the **MODE1** or **MODE2** button to turn on the sensor signal icons. For details, see "Transmission sleep mode" on page 22.

Sports mode

Manual measurement

When the auto-mode is off ($\boxed{\text{AT}}$ is off), use the **SSS** button to start/stop the measurement.

Stop reminder

The stop reminder function Reminds the rider with an alarm incase the stopwatch is forgotten to be stopped after the ride. When any signal is not received from the speed or cadence sensor for 90 seconds while counting the elapsed time, an alarm sounds and "**STOP**" appears on the screen. This alert display is repeated up to 3 times every 90 seconds. When any sensor signal is detected, the alarm is stopped.

Stop reminder

* Forgetting to stop the measurement is likely to happen at a rest during a ride or after a race finishes. In cases you will start again immediately, such as at traffic signals, or when you use this unit as a heart rate monitor, ignore this.
* This function cannot be disabled.

Resetting the measurement data and saving the files

To reset the measurement data, interval, and lap data to 0, simultaneously press the **SSS** + **MODE1** or **SSS** + **MODE2** buttons on any screen in the Sports mode (except interval on the training function screen).

SSS ▶ ◀MODE1
(Simultaneously press)
or
SSS ▶ ◀MODE2
(Simultaneously press)

Resetting the measurement data saves the point data, which was recorded at the timing set for the record interval, automatically in a file. For viewing and deleting the saved data, see the Data mode "File view" (page 39).
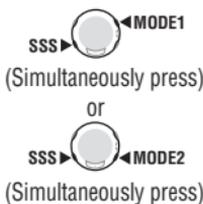
* The screen will freeze for about 2 seconds after resetting; however, all measurements are operating normally.
* After you reset, the countdown distance, countdown time, and interval are returned to the predetermined value you set.
* Cannot reset for 5 seconds after pressing the **LAP** button.
* The wristwatch has a limited memory capacity. When the data volume exceeds the memory capacity, any new data can no longer be saved. For details, see the Data mode "File view" (page 39).
* Resetting with the interval (**INT**) displayed on the training function screen resets the measurement data of the interval only. For details, see "Training function (countdown function and interval function)" on page 31.

Sports mode

Display data in Sports mode (upper and middle display)

Switch pressing the **MODE1** button

	Current speed	Displays the current speed in real time. Updates every second.
	Heart rate	Displays the current heart rate in real time. Updates every second.
	Cadence	Displays the current number of pedal rotations per minute. Updated every second.
	Average speed[*1]	Displays the average speed since the start of measurement.
	Average heart rate [*1][*2]	Displays the average heart rate since the start of measurement. The time with no heart rate measured is not reflected on the average rate.
	Average cadence [*1][*3]	Displays the average cadence since the start of measurement. Any time with no pedaling is not reflected on the average cadence.
	Maximum speed[*4]	Displays the maximum speed since the start of measurement.
	Maximum heart rate [*4]	Displays the maximum heart rate since the start of measurement.
	Maximum cadence [*4]	Displays the maximum cadence since the start of measurement.

*1 Each average value is displayed on the screen replaced with the character "**E**" when the elapsed time (**TM**) exceeds 100 hours. Clear the data by resetting (page 26). The average speed is displayed in the same way as above when the trip distance exceeds 10000 km [mile].

*2 This device stops calculating the average when the heart rate sensor is detached, and resumes the calculation when the heart rate sensor is worn again. This feature produces actual averages with the heart rate sensor worn.

*3 This device calculates the average excluding the time when you stop pedaling. This feature produces actual averages, unlike other models that calculate averages also to include any zero values.

*4 Each maximum value is updated regardless of starting or stopping the measurement.

Sports mode

Display data in Sports mode (lower display)

Switch pressing the **MODE2** button

0:12'57"9 **TM** **Elapsed time**		Displays the elapsed time from the start of measurement to the 1/10 second. When it exceeds 99:59'59", it repeats from 00'00"0.
123.87 km **DST** **Trip distance**		Displays the trip distance from the start of measurement.

◄MODE2

Training function (page 31) Displays any one selected from the countdown distance, countdown time, and interval.	**◄◄MODE2** (press and hold for 3 sec)	**Shortcut**[5] (When the measurement is stopped)
43.61 km **C.D. DST** **Countdown distance**	Counts down the predetermined distance, and displays the remaining distance.	
·······or·······		
1:05'34" **C.D. TM** **Countdown time**	Counts down the predetermined time, and displays the remaining time.	
·······or·······		
0:14'28"7 **INT** **Interval (interval time/ recovery time)**	Counts down the predetermined time (interval time), and then counts up automatically as a recovery time after the time is up. Pressing the **LAP** button starts the interval time again, which allows you to repeat a high and low intensity exercise.	
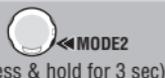
0:26'47"9 **LAP** **Lap timer**		Displays the elapsed time from the previous point (for **LAP 01**: from the start of measurement) in real time.
1325 **CAL** **Calorie Consumption**		Displays the estimated calorie consumption from the start of measurement based on the heart rate.
10:19'54" **Clock**		Displays the current time of day in the 24- or 12-hour system.

*5 When the measurement is stopped, take a shortcut (press and hold the **MODE2** button for 3 sec.) to the Setup mode "Setting the training function" (page 35).

Sports mode

Pace function

2 types of pace arrows, for speed and heart rate, are displayed in Sports mode. The arrow icons indicate whether the current speed/heart rate is above or below the average speed/heart rate.

▲   : The current value is above the average.
▼   : The current value is below the average.
▲▼   : The current value is equal to the average.
No arrows : The current value is "0".

Current speed

Heart rate

Lap function

Pressing the **LAP** button during measurement in Sports mode records the measurement data between a given set of points (average lap speed/maximum lap speed, average lap heart rate/maximum lap heart rate, lap time/split time) up to 99 points*. Immediately after recording, the lap data is displayed in the order as shown in the figure below, and then the display returns to the previous screen.

* The maximum number of lap records may decrease depending on file utilization. For details, see "Wristwatch memory capacity limit" on page 39.

Lap data

Any screen in Sports mode

Average lap speed

Lap number

Maximum lap speed

2.5 sec.

2.5 sec.

Previous screen

LAP

Average lap heart rate

Lap time

Split time

Maximum lap heart rate
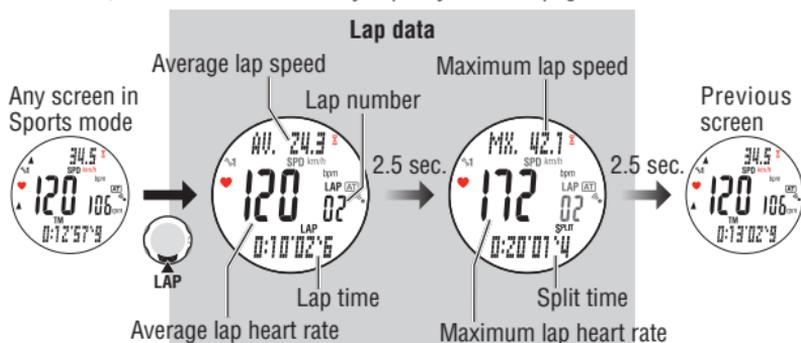
Average lap speed	Displays the average lap speed/heart rate from the previous point (for **LAP 01**: from the start of measurement) to the current point.
Average lap heart rate	
Lap number	Displays the lap number just recorded. * When the total number of laps exceeds 99 points, "--" appears indicating further lap recording cannot be done.
Lap time	Displays the elapsed time from the previous point (for **LAP 01**: from the start of measurement).
Split time	Displays the total elapsed time from the start of measurement.
Maximum lap speed	Displays the maximum lap speed/heart rate from the previous point (for **LAP 01**: from the start of measurement) to the current point.
Maximum lap heart rate	

Sports mode

Lap time and split time

The lap time displays elapsed time from the last press of the **LAP** button. The split time displays the elapsed time from the start of measurement to the point **LAP** button is pressed.

* The measured lap data is saved to a file when you perform a reset operation (page 26).

* Pressing the **LAP** button while the total number of laps reaches 99 points displays the lap data, but "**--**" appears in place of the lap number indicating further recording is impossible.

* The lap data can be reviewed in the Data mode "File view"(page 39).
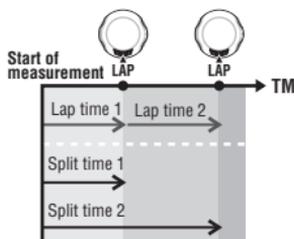
Real time lap data

Pressing and holding the **LAP** button on any screen in Sports mode displays the real time lap data in the upper and middle displays. For the real time lap data, the unit starts/stops the measurement in sync with the primary measurement; however, it resets and restarts the data every time you press the **LAP** button. This independent feature of lap time can be useful also for pace checks in a lap and sectional trials such as hill climb section.
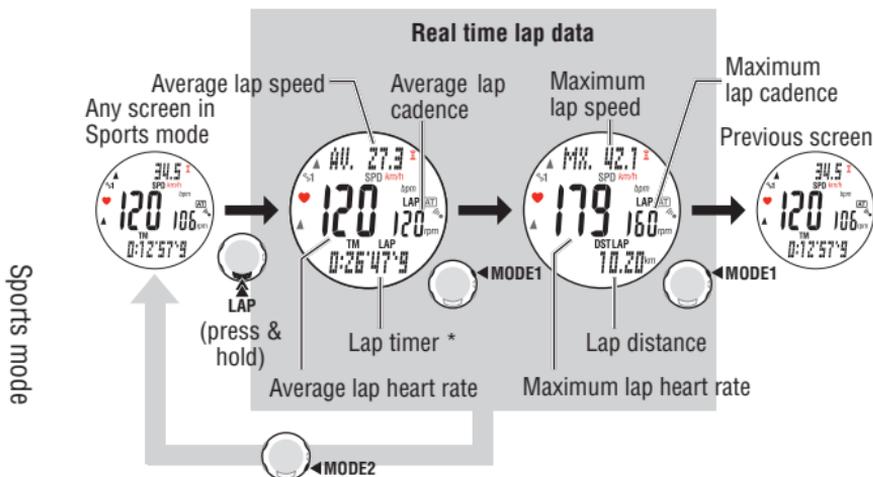
* Press the **MODE2** button with the real time lap data to return to the previous Sports mode screen.

Sports mode

Training function (countdown function and interval function)

This unit has a countdown function that counts down the predetermined time and indicates when the time is up by setting the target trip distance and elapsed time, and an interval function that is used to set the interval time for a given training. The training function includes both these 2 functions.

* Either the countdown function or interval function is displayed in the lower display. For display of the training function, see "Display data in Sports mode (lower display)" on page 28.

* Select the training function and enter the respective setting values in "Setting the training function" (page 35) in Option mode. Display Option mode in the **MENU** screen or shortcut (press and hold **MODE2**) to the training function setting screen.

Countdown distance

Displays the countdown distance to a predetermined target trip distance. When it reaches the target trip distance, the unit switches the lower display to the countdown data in any Sports mode display, and notifies by flashing the numerical value/icon and an alarm sound.

When the target trip distance is 20 km

C.D. DST
20.0 km

↓

When reached

Beep

((C.D. DST
0.0 km

(displays for 5 seconds)

  * Resetting returns the numerical value to the predetermined value you set.

Example of how the countdown distance is used:

1. Entering the race event distance

For distance system events such as a road race and century ride, enter the race event distance before the start, and develop your strategy and pace based on the countdown distance during the race.

2. Entering the destination sign distance

For touring, enter the sign distance whenever you encounter a destination sign along the road, and develop your pace based on the countdown distance.

3. Entering the periodical target distance

Enter the periodical target distance for a week, month, or year to check your progress.

Countdown time

Displays the countdown time to a predetermined target elapsed time. When it reaches the target elapsed time, the unit switches the lower display to the countdown data in any Sports mode display, and notifies by flashing the numerical value/icon and an alarm sound.

When the target elapsed time is 1 hour

C.D.TM
01:00'00"

↓

When reached

Beep

((C.D.TM
00:00'00"

(displays for 5 seconds)

  * Resetting returns the numerical value to the predetermined value you set.

Example how the countdown time is used:

1. Entering a timed race

For a time endurance race, enter the limit time, and check your pace based on the countdown time.

Sports mode

2. Setting the return time limit
   Enter the half way time when the ride time is limited, and enjoy your ride without minding the time.

3. Target time for a Century ride
   Enter the target time for big events such as Century ride and Granfondo, and check your pace.

Interval (interval time/recovery time)

* Use this function in the interval training.

The interval training is a training method that combines the interval time (high intensity exercise time) and the recovery time (rest time). With this unit, the recovery time is not set for the purpose of simplifying the setup. The recovery time is to be judged by users based on the count-up display of the wristwatch. Judging the recovery time by users enables flexible training menus, in which the recovery time in every repeat is different from the recovery time between the sets (such training that has the recovery time of 3 minutes in every repeat, and 10 minutes between the sets).

  * You can check recovery progress while riding by viewing the screen.

  * Depending on the course condition as signals or traffics, you might not start the interval along with the pre-set recovery time. In this case, you can take a training with smoothness by timing the start on yourself.

An image of interval measurement
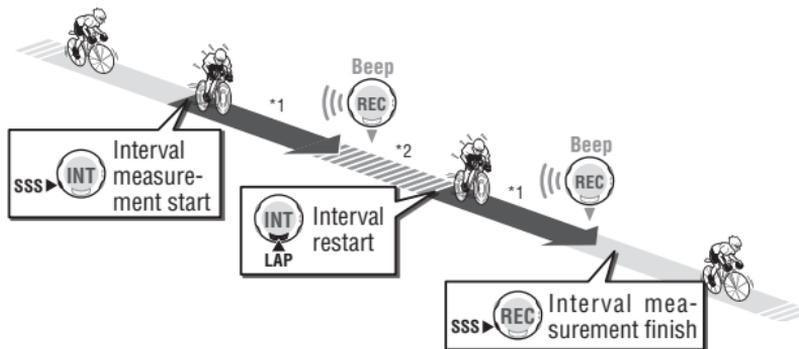
*1 **Interval time**: Starts countdown from the pre-set time to zero. At zero, switches to recovery time.

*2 **Recovery time**: No need to pre-set the recovery time. The wristwatch remains in the recovery period until **LAP** button is pressed. Press the **LAP** button at any timing to restart the next interval.

How to use the interval:

> * During the interval training, use the interval display to avoid confusing the start/stop operation with the reset operation.

1. Setting the interval.
Switch to Sports mode by selecting the interval from the Option mode "Setting the training function".

2. Press the **MODE2** until "**INT**" icon displayed in the lower display.

Switch the lower screen : ◯ ◀**MODE2**

Heart rate
Current speed

Interval time

3. Press the **SSS** button to start the count down interval measurement. Start a high intensity exercise.
The interval time countdown is displayed.

Interval measurement start : **SSS** ▶ ◯

Cadence

* Use the **SSS** button to start/stop the interval even when the auto-mode is on (**AT** lights up). To start the interval measurement, press the **SSS** button with the interval displayed in the lower display. Pressing the **SSS** button with the interval displayed does not affect start/stop of the measurement in the wristwatch. However, the elapsed time measurement in the wristwatch will start just as the interval starts, when the auto-mode is off (**AT** lights off) and measurement is stopped.

Interval time (countdown)

4. When the interval counts down to zero, it will automatically change to recovery timer, which counts up until next interval is ready.
When the interval time reaches the predetermined time, an alarm sounds, various average values and maximum values are displayed in the order as shown in the figure below, and then the recovery time starts countup. At this point, the wristwatch records the lap data automatically. Measure for any period of time in the recovery time, while relaxing and recovering from fatigue.

Sports mode

Interval time finish

Beep

Average speed
Average cadence

Maximum speed
Maximum cadence

Current speed
Cadence

→ 2.5 sec. → 2.5 sec. →

Average heart rate
Number of intervals

Maximum heart rate
Trip distance in the interval

Heart rate

Recovery time (count-up)
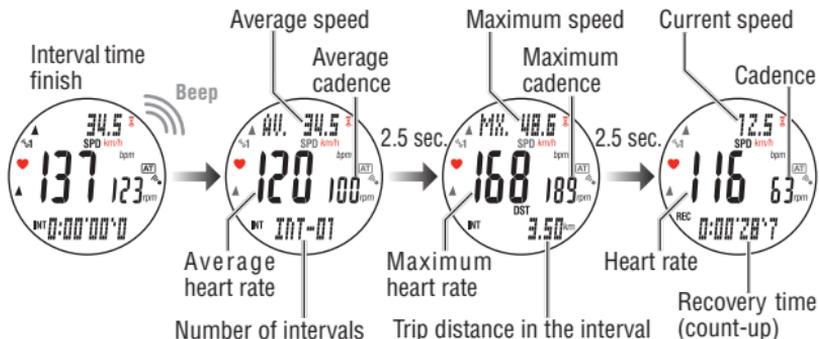
5. Press the **LAP** button to start the next repeat of the interval time again. Start pedaling at your interval intensity.
Repeat the steps 4 and 5.

Interval restart :
LAP

6. When "**INT**" or "**REC**" is displayed in the lower display, pressing the **SSS** button stops the interval measurement.

Interval measurement stop : **SSS** ▶

* To restart the interval measurement, press the **SSS** button.

* Resetting with the interval displayed resets the interval measurement data only.

* The lap data is recorded automatically when the interval measurement starts and the interval time is up. When interval measurement is inserted during primary measurement, the lap data is recorded as being continued, like regular lap data.

* During the interval measurement, pressing the **LAP** button skips the interval time being counted-down, and starts a new countdown.

* The interval time stops just as the elapsed time stops in the wristwatch.

Target heart rate zone

During measurement, the icon " 🖤 " is displayed, which indicates the target heart rate status.

🖤 (constant) : The target zone is set to any of HR.**ZONE:1** to **5**.

🖤 (flashing) : The current heart rate is out of the selected zone.

🖤 (off) : The target zone is set to off.

* For selecting the zone and setting the zone range, see the Option mode "Setting the target heart rate zones" (page 36).

Target heart rate zone

Option mode (OPTION)

OPTION

MENU

Function in Option mode

Option mode is used to change the settings of the training function, which is used most frequently in Sports mode, and the target heart rate zone. Switch to various settings as follows.

CD.TIMER

100.0

DST km

Setting the training function (countdown/interval)
This function is used to select the countdown or interval, and enter the settings.

— Target distance or time currently set

— Training function currently selected
DST : Countdown distance
TIME : Countdown time
INT : Interval timer

◄MODE1 (or)
◄MODE2

HR ZONE

OFF

Setting the target heart rate zones (page 36)
Select the target heart rate zone, and enter the upper and lower limits.

— Heart rate zone currently set

Setting the training function   CD.TIMER

This function is used to select the training function displayed in the lower of the screen, and enter the settings.

* Stop the measurement before you change the settings.

* In case of shortcutting from Sports mode, proceed to step 2, skipping step 1.

* Press and hold only the **MODE1** button to increase the number quickly.

1. When any other mode screen is displayed, switch to the Option mode "**CD.TIMER**".

Select "**OPTION MENU**" by pressing the **MENU** button several times to switch to "**CD.TIMER**" automatically. Then, confirm it pressing the **SSS** button.

CD.TIMER

100.0

DST km

Switch the mode : **MENU ►**   Confirm : **SSS ►**

Option mode

2. Select the training function displayed in the lower of the screen.
Select the "**DST** (countdown distance)", "**TIME** (countdown time)", or "**INT** (interval timer)" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

Select the training function :   ◄**MODE1** (or)   Confirm :
(**DST** ↔ **TIME** ↔ **INT**)   ◄**MODE2**   **SSS**▶

Countdown function currently selected

3. Enter the setting.
Enter the target value for the function selected in step 2, each digit one by one. Change the value pressing the **MODE1** to increase and **MODE2** button to decrease the value, and move digits pressing the **SSS** button.

Increase/decrease :   ◄**MODE1** (or)   Confirm : **SSS**▶
   ◄**MODE2**

Target distance or time

* Press and hold the **MODE2** button for 3 seconds to confirm the changes, and shortcut to the previous Sports mode.

4. Pressing the **MENU** button confirms the change, and returns to Option mode "**CD.TIMER**".
To switch to other mode, press the **MENU** button several times to display the screen of your choice.

To the mode top/switch the mode : **MENU**▶

* The settings are reflected in the lower display in Sports mode. For details, see "Training function (countdown function and interval function)" on page 31.

Setting the target heart rate zones   HR ZONE

Select the registered target heart rate zone (**1** to **5**) or **OFF**, change the upper/lower limit of each zone, or set on/off of the zone sound.

* Stop measurement and perform the resetting operation (page 26) before you change the target heart rate zone. If you do not perform the resetting operation, "**DATA RESET**" appears on the screen and you cannot change the target heart rate zones.

* For details of the target zone, see "Use of the target zone" (page 63).

* The time in the zone measured can be viewed by file in the Data mode "File view" (page 39).

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. When any other mode screen is displayed, switch to the Option mode "**CD.TIMER**".
Select "**OPTION MENU**" by pressing the **MENU** button several times to switch to "**CD.TIMER**" automatically.

Switch the mode : **MENU**▶

2. Switch to "**HR ZONE**" pressing the **MODE1** or **MODE2** button, then confirm it pressing the **SSS** button.

Switch the screen : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

* The target heart rate zone (**ZONE-1** to **5**) or "**OFF**" currently selected appears on the screen.

3. Select the target heart rate zone.
Select one of "**OFF**", "**ZONE-1**", "**2**", "**3**", "**4**" or "**5**" pressing the **MODE1** or **MODE2** buttons. To set the target heart rate zone, select from "**1**" to "**5**" and confirm it pressing the **SSS** button, and then proceed to the step 4. Otherwise, select "**OFF**" and proceed to step 6.

Select the zone : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

4. Enter the lower limit of the zone currently selected pressing the **MODE1** and **MODE2** buttons, and confirm it pressing the **SSS** button.
Then, enter the upper limit in the same way, and confirm it pressing the **SSS** button.

Increase/decrease : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

* You can enter any upper/lower limit to each zone; however, the upper limit is adjusted automatically to the lower limit + 1 when the entered lower limit exceeds the upper limit. In case of the upper limit, vice versa, the lower limit is adjusted in the same way.
* It is no problem even if the upper and lower limit range overlaps other zones.

5. Select "**ON**" or "**OFF**" of the alarm sound pressing the **MODE1** and **MODE2** buttons, and confirm it pressing the **SSS** button.

ON ↔ OFF : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

* When the alarm sound is on, an alarm sounds continuously as long as the heart rate is outside the target heart rate zone.

6. Pressing the **MENU** button confirms the change, and returns to Option mode "**HR ZONE**".
Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU** ▶

HR ZONE
OFF

HR ZONE
OFF

Heart rate zone currently selected

Upper limit

Z-1 LO
120 bpm
100

Lower limit

SOUND
ON
ZONE

Setting the HR alarm zone

Option mode

Data mode (DATA)

Switching Data mode
Select "**DATA MENU**" by pressing the **MENU** button until it switches to Data mode.

DATA

MENU

Function in Data mode

The Data mode is used to review and delete the saved files, download the measurement data to your PC, and review past records.

◀MODE1

FILE

F30 ˢⁱᵖ 57

MEM 49%

File view (page 39)
This view is used to review and manage the various data recorded.

— Number of total laps in all files
— Number of total files saved
— Memory point utilization

↑ ↓

PC LINK

PC link (page 44)
This is used to send the measurement data to your PC.
* The optional "USB communication kit" is required.

↑ ↓

VIEW

LOG

◀MODE2

Past records (page 46)
Past trip distance and elapsed time can be reviewed by time period.

Data mode

File view   FILE

The lap and measurement data are saved into a file automatically each time a ride is reset (Resetting operation on page 26). With the file view, you can review and delete the files saved.

Saving and managing the files

The wristwatch can record up to 30 files.

A new file is always saved as **F01**. When the file volume exceeds the wristwatch memory capacity, the oldest file is deleted automatically.

Date of creation : New ◄──────────────► Old

Measurement data to be saved in a file
- Date and time of file creation (date/time when the measurement started)
- Trip distance
- Elapsed time
- Various average values (speed/heart rate/cadence)
- Various maximum values (speed/heart rate/cadence)
- Calorie consumption
- Number of laps used
- Time distribution to the target zone (time in/above/below the zone) and the percentages (%)
- Lap data (average lap speed, average lap heart rate, maximum lap speed, maximum lap heart rate, lap time, split time, trip lap distance)
- Point data at the intervals specified.

Wristwatch memory capacity limit

Data can be saved within the following memory capacity limits.

Number of files		30 files
Number of laps		Laps shall be 99 or less. (* See "Lap data")
Memory for each recording interval		Points shall be 36000 or less.
Example	At 2 seconds	Maximum record of 20 hours
	At 3 seconds	Maximum record of 30 hours
	At 5 seconds	Maximum record of 50 hours
	At 10 seconds	Maximum record of 100 hours

Data mode

- **Lap data**

  One lap per file is used even when there is no lap data. Therefore, the total number of laps is the sum of the total number of laps in all files and the number of files.

  Example) When the following number of laps are recorded in the files:

Number of laps in a file	Number of files
F01 : 5 laps	
F02 : 0 lap	3 files
F03 : 10 laps	

  The total number of laps is the sum of the total number of laps in all files "15", and the total number of files "3", i.e., "18".

- **Memory point**

  This unit has a function to automatically record the data at intervals specified during measurement (memory point). The recorded data are saved in a file together with other measurement records and lap data.

  The memory point can be viewed in "memory point utilization" on the File view. To use such data, you have to send them to your PC (page 44).

  The automatic record interval can be selected from 4 options in the range of 2 to 10 seconds according to your application. For details, see the Setup mode "Setting the record interval" (page 55).

  When the memory point utilization is over 90%, and the remaining memory capacity is low:

  An alarm sounds during the measurement, "**MEMORY**" flashes on the screen. This alert is displayed repeatedly every 2 minutes until the data volume exceeds the memory capacity.

  When the memory point utilization reaches 100%, and the data volume exceeds the memory capacity:

  An alarm sounds during the measurement, "**MEMORY FULL**" flashes on the screen. In this case, the wristwatch automatically saves the data being measured, and creates a file. Data will be displayed on the screen but now can no longer be saved. The alert is displayed repeatedly every 2 minutes. It is recommended to stop the measurement immediately, and delete the files in the wristwatch.

  *When using the optional "USB communication kit", delete the files after you send the saved files to your PC.

Viewing the contents in a file

View the measurement data in a file saved in the wristwatch.

1. Switch to the Data mode "**FILE**", when any other mode screen is displayed.

Select "**DATA MENU**" by pressing the **MENU** button several times to switch to "**FILE**" automatically. Then, confirm it pressing the **SSS** button.

Switch the mode : ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶

Number of total files saved

Number of total laps in all files

FILE

F30 LAP *57*

MEM 49%

Memory point utilization

2. Select the file number you want to view.

Select the file number pressing the **MODE1** or **MODE2** button, and confirm it pressing the **SSS** button.

Switching the file number : ◀**MODE1** ◀**MODE2** (or)

Confirm : **SSS** ▶

* The file number starts with the latest file (**F01**).

File number

Number of laps in a file

FILE

F01 LAP *5*

10.01.01

3. Scroll through the data saved in each file by pressing the **SSS** button.

The display items are as follows on the next page.

Date of file creation

▲▼ (Displayed alternately)

11:05

Time of the start

4. Pressing the **MENU** button returns to the Data mode "**FILE**". Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU** ▶

* When the target heart rate zone is set to OFF during measurement, no data related to the target heart rate zone saved is displayed.

* Pressing the **LAP** button while viewing data switches to viewing the lap data. For details, see "Viewing the lap data" (page 43).

Data mode

Flow of file view

Delete file view screen

DELETE
ALL

Delete all files
(to the top screen
of the File view)

MODE1
(or)
MODE2
MENU
Return

FILE
Data mode "FILE"

F01 LAP 5
10.01.01 (Displayed alternately) 11:05

RIDE TM
4:08.32 DST 100.00

Trip time (hour/minute/second)
Trip distance (km [mile])

OVER
120 30%
1:18'54"3 (Displayed alternately)

UNDER
80 18%
0:56'48"7

Time above the zone, and the percentage *1
Time below the zone, and the percentage *1

AV. 27.3 SPD km/h
120 103 bpm
325 CAL

Average cadence
Average speed
Average heart rate
Calorie consumption (kcal)

Heart rate zone number

ZONE-1
120 50%
2:37'49"6 (Displayed alternately)

Upper zone limit
80 50%
Lower zone limit
Time in zone, and percentage *1

MX. 42.1 SPD km/h
180 159 bpm

Maximum speed
Maximum heart rate
Maximum cadence

*1: The zone percentage is displayed as a guide only, and the total percentage of 3 zones does not come to 100%.
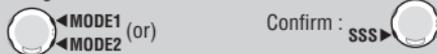
Data mode

ENG-42

Viewing the lap data

View the lap data in a file saved in the wristwatch.

1. Select the file number you want to view from the Data mode "**FILE**" (page 41).

   Select the file number pressing the **MODE1** or **MODE2** button, and confirm it pressing the **SSS** button.

   Switching the file number :
   ◄**MODE1** (or)
   ◄**MODE2**   Confirm : **SSS** ►

   * The file number starts with the latest file (**F01**).

2. Press the **LAP** button to view the lap data contained in the file selected.

   Switch the average value to maximum value display pressing the **SSS** button. Press the **LAP** button again to return from the lap data.

   Viewing/exiting lap data : **LAP**

   * When no lap data is contained in the file, it cannot be viewed.
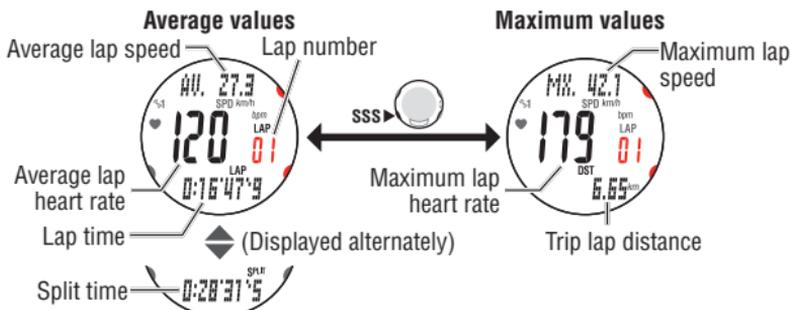
File number

Number of laps in a file

FILE

F01 **LAP** *5*

10.01.01

Date of file creation

◆ (Displayed alternately)

11:05

Time of start

Average values

Average lap speed — Lap number

AV. 27.3 SPD km/h

120 **LAP** *01* bpm

Average lap heart rate

0:16'47"9

Lap time

◆ (Displayed alternately)

Split time — *0:28'31"5* SPLIT

SSS ►

Maximum values

Maximum lap speed

MX. 42.1 SPD km/h

179 **LAP** *01* bpm

Maximum lap heart rate

6.65 km DST

Trip lap distance

3. Switch the laps, if applicable, pressing the **MODE1** and **MODE2** buttons.

   Switching the lap number : ◄**MODE1** (or)
   ◄**MODE2**

4. Pressing the **MENU** button returns to the Data mode "**FILE**". Press the **MENU** button repeatedly to switch to another mode.

   To the mode top/switch the mode : **MENU** ►

Data mode

Deleting files

You can manually delete the files saved in the wristwatch.
When the data volume exceeds the memory capacity, the wristwatch automatically deletes the oldest file, and creates a new file. You can manually delete all files at once.

1. Switch to the Data mode "**FILE**" (page 41), and confirm with the **SSS** button.

2. Simultaneously press **SSS** button and the **MODE1** or **MODE2** button to switch to the delete screen.

Switch to Delete: $_{SSS}$ ◀**MODE1** (or) $_{SSS}$ ◀**MODE2**

3. Pressing the **SSS** button deletes all files, and returns to the Data mode "**FILE**".
Press the **MENU** button repeatedly to switch to another mode.

Delete all files : $_{SSS}$ ▶

Cancel deleting files : **MENU** ▶

To the mode top/switch the mode : **MENU** ▶

DELETE
ALL

Delete file view screen

* Pressing the **MENU** button on the delete screen cancels deleting files, and returns to the previous screen.

* When the wristwatch has no files (**F00**) the delete file operation is not operable.

* Once any file is deleted, all lap data contained in the file are also deleted.

* Once a file is deleted, it cannot be restored.

PC link   PC LINK

The PC link is used for two-way communication with your PC to which download software "e-Train Data™ ver.4" is installed. You can send the data measured with this unit to your PC, and change various settings in the wristwatch from your PC.

The optional "USB communication kit" and installation of the "e-Train Data™ ver.4 (Windows version)" contained in the CD-ROM supplied are required to use this function.
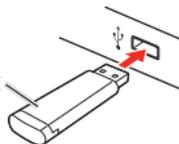
* For using the files sent, refer to the e-Train Data™ ver.4 instruction manual contained in the CD-ROM supplied.

Data mode

Communication between your PC and this unit

Send the files saved in the wristwatch to your PC, or reflect the settings changed from your PC in the wristwatch.

1. Boot your PC, and connect the USB communication unit to the your PC.

USB communication unit

2. Start e-Train Data™ ver.4, and click the "**Communication**" button on your PC screen.
Prepare for sending the data according to the instructions displayed on your PC screen.

3. Switch to the Data mode "**FILE**", when any other mode screen is displayed.
Select "**DATA MENU**" by pressing the **MENU** button repeatedly to switch to "**FILE**" automatically.

Switch modes : **MENU ▶** ◯

4. Switch to "**PC LINK**" pressing the **MODE1** or **MODE2** button, and then press the **SSS** button.
"**LINK-TO PC**" appears on the screen, and the wristwatch automatically starts searching for your PC. Once the communication is established, it switches to "**SEND FILE**", and starts sending the data.

Switch the screen :
◀MODE1
◀MODE2 (or)
◯

Search PC / Send the data :
SSS ▶ ◯
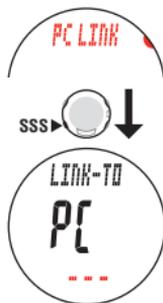
* When communication with your PC cannot be established, "**LINK-TO PC FAIL**" appears. Press the **SSS** button to return to "**PC LINK**", and check the condition of your PC. Pressing the **SSS** button again restarts searching for your PC.

* Pressing the **MENU** button while sending the data displays "**LINK-TO PC FAIL**", and stops sending the data. Pressing the **SSS** button returns to "**PC LINK**".

* Depending on the number of files saved, it takes up to 5 minutes to send the data.

FILE

F30 ᴸᴬᴾ 57

MEM 48%

PC LINK

SSS ▶ ◯ ↓

LINK-TO

PC

- - -

Searching for your PC

↓

SEND

FILE

Sending data

Data mode

5. Once sending data is completed, "**SEND FILE END**" appears. Press the **SSS** button and return to the data mode "**PC LINK**".

To the mode top : **SSS** ▶ ⬭

SEND
F ILE
END

Completion of sending

6. Press the **MENU** button repeatedly to switch to another mode.

To switch modes : **MENU** ▶ ⬭

Data to be sent from this unit to your PC

The data to be sent to your PC are as follows.
- File number
- Date/time of file creation (date/time when the measurement started)
- Measured values of the speed, heart rate, cadence, trip distance, and elapsed time, at the record intervals specified
- Lap data (lap number, average lap speed, average lap heart rate, Average lap cadence, maximum lap speed, maximum lap heart rate, maximum lap cadence, lap time, split time, and lap distance), Time in the heart rate zone (over / within the range / under)
 * The wristwatch has a limited memory capacity. It is recommended to transfer the measurement data periodically to your PC, and delete the files in the wristwatch (page 44).

Settings to be changed from your PC

The date, clock, on/off and time of the alarm, tire circumference, speed unit, record interval, total trip distance/total elapsed time, auto-mode setting, and sound setting.

Past records   VIEW LOG

The past records allow you to view the trip distance and elapsed time by time period, which are essential for your training management.

- Total trip distance (**ODO**) and total elapsed time (**TTM**) since beginning use of this unit
- Weekly trip distance and time since Monday
- Monthly trip distance and time since the 1st
- Yearly trip distance and time since January 1st

You can adjust effectively the training menu by receiving and analyzing the actual training volume of each period of time.

Data mode

1. Switch to the Data mode "**FILE**", when any other mode screen is displayed.
Select "**DATA MENU**" by pressing the **MENU** button several times to switch to "**FILE**" automatically.
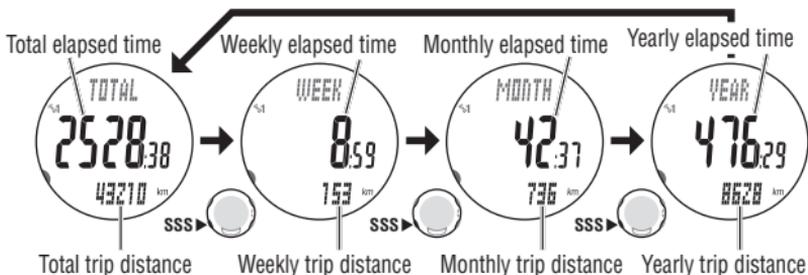
Switch modes : **MENU ▶**

2. Switch to "**VIEW LOG**" pressing the **MODE1** or **MODE2** buttons, and confirm pressing the **SSS** button.

Switch the screen : **◀MODE1 / ◀MODE2** (or)   Confirm: **SSS ▶**

3. The total trip distance and total elapsed time since first use of the wristwatch are displayed.
The weekly, monthly, and yearly trip distance and elapsed time are displayed in sequence by pressing the **SSS** button.

Total elapsed time   Weekly elapsed time   Monthly elapsed time   Yearly elapsed time

Total trip distance   Weekly trip distance   Monthly trip distance   Yearly trip distance

4. Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU ▶**

* Once you change any date in the past according to the Setup mode "Setting the clock/date" (page 49), some integrated values for the year, month, or week are deleted according to the relevant changes.

	Total elapsed time and total trip distance	Elapsed time and trip distance for the week	Elapsed time and trip distance for the month	Elapsed time and trip distance for the year
When the year is changed	Retained	Deleted	Deleted	Deleted
When the month is changed	Retained	Deleted	Deleted	Retained
When the day is changed	Retained	Deleted	Retained	Retained

* The trip distance of "Past records" in the data mode is integrated regardless of starting or stopping of the measurement. Therefore, the trip distance may differ from that in the sports mode which is interlocked with the start/stop of the measurement.
* The measurement time is integrated into the elapsed time.
* Once "**MEMORY FULL**" appears on the screen, the elapsed time is no longer added. It will resume when the wristwatch attains an available capacity.

Data mode

Setup mode (SETUP)
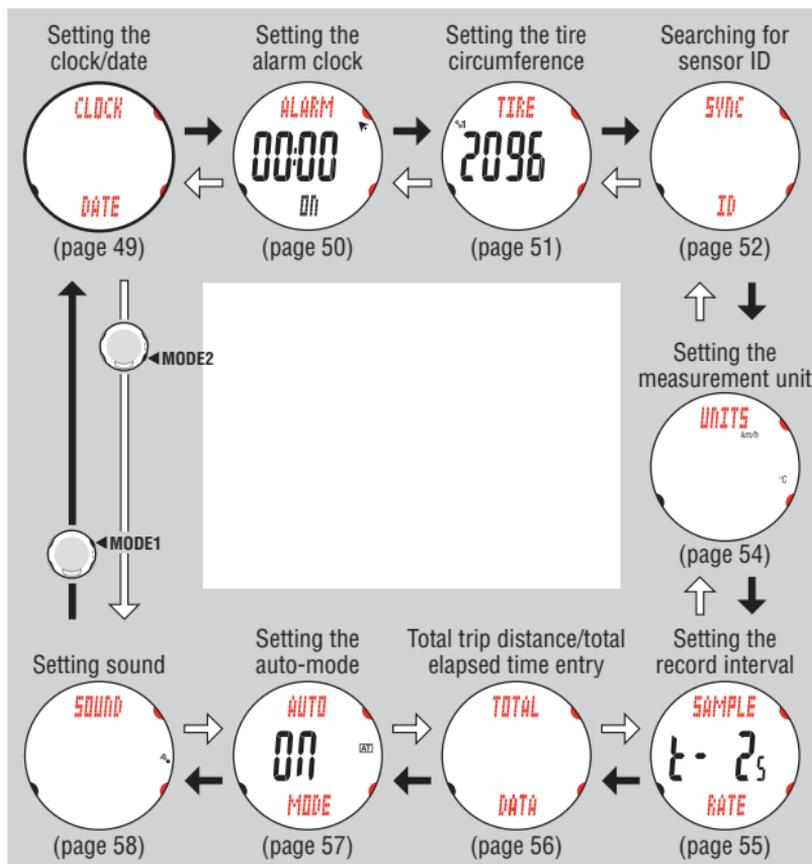
MENU ▶▶   (press & hold)

SETUP
MENU

Function in Setup mode

Setup mode is used to change various settings of the wristwatch. Switch the setup items pressing the **MODE1** or **MODE2** button.

* Once any setting is changed, confirm it pressing the **MENU** button.
* Unless you perform an operation within 3 minutes, it returns to Clock mode. In such cases, any change is not reflected.

Setting the
clock/date

CLOCK

DATE

(page 49)

→

Setting the
alarm clock

ALARM
00:00
ON

(page 50)

←

→

Setting the tire
circumference

TIRE
2096

(page 51)

←

→

Searching for
sensor ID

SYNC

ID

(page 52)

←

↑ ↓

Setting the
measurement unit

UNITS
km/h
°C

(page 54)

◀MODE2

◀MODE1

↑ ↓

Setting sound

SOUND

(page 58)

←

⇨

Setting the
auto-mode

AUTO
ON
MODE

(page 57)

←

⇨

Total trip distance/total
elapsed time entry

TOTAL

DATA

(page 56)

←

⇨

Setting the
record interval

SAMPLE
t - 2s
RATE

(page 55)

Setup mode

Setting the clock/date   CLOCK DATE

Set the "Clock display format", "Hour", "Minute", "Date display format", "Year", "Month" and "Day".

> * Once you change any date in the past, some integrated values for the year, month, or week in the Data mode "Past records" (page 46) are deleted according to the relevant changes.

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
The wristwatch switches to "**CLOCK DATE**" automatically.
Then, confirm it with the **SSS** button.
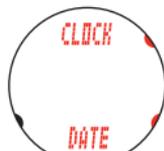
Switch the mode : **MENU** ⟫ ◯ (press & hold)   Confirm : **SSS** ▶ ◯

CLOCK
DATE

2. Select the clock display format.
Select "**24h**" (24 hour)" or "**12h**" (12 hour)" pressing the **MODE1** and **MODE2** buttons, and confirm with the **SSS** button.

24h ↔ 12h : ◯ ◀MODE1 (or)   Confirm : **SSS** ▶ ◯
            ◀MODE2

Display format

24h
0:00.00
10.01.01

3. Enter the "Hour" or "Minute".
Enter the "Hour" pressing the **MODE1** and **MODE2** buttons, confirm with the **SSS** button, and then enter the "Minute" in the same way.

Increase/decrease : ◯ ◀MODE1 (or)   Confirm : **SSS** ▶ ◯
                    ◀MODE2

Hour

24h
0:00.00
10.01.01

4. Select the date display format.
Select the date display format from "**YY.MM.DD**", "**DD.MM.YY**", and "**MM.DD.YY**" pressing the **MODE1** and **MODE2** buttons, and confirm with the **SSS** button.

Switch the display : ◯ ◀MODE1 (or)   Confirm : **SSS** ▶ ◯
                     ◀MODE2

Minute

0:00.00
YY.MM.DD

5. Enter the "Year", "Month" and "Day".
Enter the "Year", "Month" and "Day" in the display order selected in Step 4 pressing the **MODE1** and **MODE2** buttons, and confirm with the **SSS** button. Enter only the last 2 digits of the year.

Increase/decrease : ◯ ◀MODE1 (or)   Confirm : **SSS** ▶ ◯
                    ◀MODE2

Display format

0:00.00
10.01.01
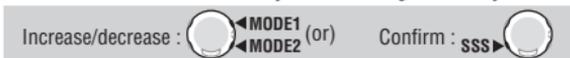
YY/MM/DD

Setup mode

6. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**CLOCK DATE**".
Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU ▶**◯

Setting the alarm clock   ALARM

Set the alarm in Clock mode.

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

Switch modes : **MENU ▶**◯ (press & hold)

CLOCK

DATE

2. Switch to "**ALARM**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

Switch screen : ◯**◀MODE1 ◀MODE2** (or)   Confirm : **SSS ▶**◯

ALARM

00:00

ON

3. Select "**ON**" or "**OFF**" pressing the **MODE1** or **MODE2** button.
To use the alarm clock, select "**ON**" and press the **SSS** button to proceed to Step 4. Otherwise, select "**OFF**" to proceed to Step 5.

ON ↔ OFF: ◯**◀MODE1 ◀MODE2** (or)   Confirm : **SSS ▶**◯

ALARM

00:00

ON

* You can set on/off of the alarm clock also in Clock mode. When it is on, 🔔 icon appears.

4. Enter "Hour" and "Minute".
Enter "Hour" pressing the **MODE1** and **MODE2** buttons, and confirm it pressing the **SSS** button. Then, enter "Minute" in the same way.

Increase/decrease: ◯**◀MODE1 ◀MODE2** (or)   Confirm : **SSS ▶**◯

ALARM

00:00

Hour Minute

Setup mode

5. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**ALARM**".
Press the **MENU** button repeatedly to switch to another mode.

> To the mode top/switch the mode : **MENU▶**◯

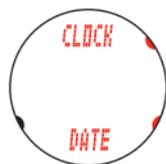## Setting the tire circumference   TIRE

Set the tire circumference (peripheral length) to **SP1** (Speed sensor 1) and **SP2** (Speed sensor 2) synchronized according to "Searching for sensor ID" (page 52).

* For the tire circumference, see "Tire circumference" (page 16).

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

> Switch modes : **MENU▶▶**◯(press & hold)

CLOCK

DATE

2. Switch to "**TIRE**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

> Switch screen : ◯◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS▶**◯

Sensor currently selected

TIRE

2096

Tire circumference set to the sensor currently selected

3. Select 🐾1 (Sensor 1) or 🐾2 (Sensor 2) by pressing the **MODE1** or **MODE2** button.

> 🐾1 ↔ 🐾2 : ◯◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS▶**◯

TIRE

2096

5/ID:1

* When using a wristwatch for a single bicycle, set the tire circumference to 🐾1 (Sensor 1) only. When using a wristwatch commonly for two bicycles, sets the tire circumference of the second bicycle to 🐾2 (Sensor 2).

Setup mode

4. Enter the last 2 digits for the tire circumference of the sensor selected in Step 3 using the **MODE1** and **MODE2** buttons, and move digits using the **SSS** button.
Then, enter the first 2 digits in the same way.

Increase/decrease: ◯ ◀MODE1 ◀MODE2 (or)   Move digits: SSS▶ ◯

5. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**TIRE**".
Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : MENU▶ ◯

* Switching to the Sports mode displays the sensor icon (🚴1 or 🚴2) selected. Even when a wristwatch is commonly used for 2 bicycles, the speed sensor is recognized automanically; accordingly, the measurement can be started appropriately (it may take time to recognize it automatically depending on the situation).
For details, see "Automatic recognition of the speed sensor ID" on page 6.

Searching for sensor ID   SYNC ID

Pairing the wristwatch with the heart rate and speed/cadence sensors.

* This unit requires checking of the sensor ID in order for the wristwatch to receive signals from the sensors. Once you format the wristwatch, or when you use a new sensor, synchronize the sensor ID according to the following procedure.

> * When you use the unit for the first time (at factory default setting), each sensor ID has been synchronized to the wristwatch in the package; accordingly, the following procedure is not required.

* To synchronize the sensor ID, each sensor must be near the wristwatch.
* Check that there is not any other sensor of the same type nearby.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

Switch modes : MENU▶▶ ◯ (press & hold)

2. Switch to "**SYNC ID**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

Switch screen : ◯ ◀MODE1 ◀MODE2 (or)   Confirm : SSS▶ ◯

3. Select the sensor ID to be checked.

Select from "**HR** (heart rate sensor)", "**SP1** (speed sensor 1)", and "**SP2** (speed sensor 2)" pressing the **MODE1** and **MODE2** buttons, and then confirm it pressing the **SSS** button.

HR ↔ SP1 ↔ SP2: ◄**MODE1** / ◄**MODE2** (or)   Confirm : **SSS**▶
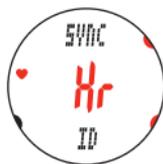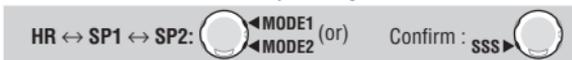
* **SP2** is used when a wristwatch is commonly used for 2 bicycles. Once you synchronize the ID of the second bicycle equipped with a sensor with **SP2** in advance, the wristwatch can identify the second bicycle automatically.

4. Press the **SSS** button to start searching for the ID.

When you select "**SP1**" or "**SP2**", press the **RESET** button on the speed sensor. When you selected "**HR**", wear the heart rate sensor (page 12), or transmit a sensor signal according to the following simple method below.

When the heart rate or speed/cadence is displayed with "**ID-OK**" on the screen, synchronization is completed.

Start searching : **SSS**▶

* This unit enters the search mode for 5 minutes after starting the ID sync. Press the **SSS** button in the search mode to cancel the ID synch, and "**ID-SKIP**" is displayed. If any sensor signal is not received in 5 minutes, "**ID-ERROR**" is displayed. When "**ID-SKIP**" or "**ID-ERROR**" is displayed, the ID has not been synchronized properly.

* Even when the heart rate sensor is not worn, it transmits a heart rate signal by rubbing both electrode pads with your thumbs.

Electrode pad
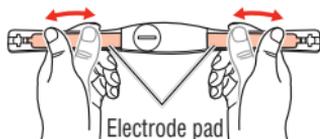
5. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**SYNC ID**".

Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU**▶

* When you use **SP2**, set the tire circumference of 🚲2 (Sensor 2) according to "Setting the tire circumference" (page 51).

Setup mode

Setting the measurement unit   UNITS

Change the speed unit.

*Stop measurement and perform the resetting operation (page 26) before you change the unit. Unless you perform the resetting operation, "**DATA RESET**" appears on the screen, preventing change of the unit.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

> Switch modes : **MENU ▶▶** ◯ (press & hold)

CLOCK

DATE

2. Switch to "**UNITS**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

> Switch screen : ◯ ◀**MODE1** (or)   Confirm : **SSS ▶** ◯
> ◀**MODE2**

UNITS
km/h

℃
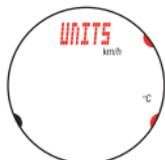
Current speed unit

3. Select the speed unit pressing the **MODE1** or **MODE2** button.

> **km/h ↔ mph :** ◯ ◀**MODE1** (or)   Confirm : **SSS ▶** ◯
> ◀**MODE2**

UNITS
km/h

SPEED
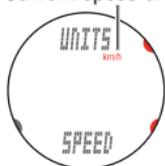
4. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**UNITS**".
Press the **MENU** button repeatedly to switch to another mode.

> To the mode top/switch the mode : **MENU ▶** ◯

*After the measurement unit is switched, the total distance measured in the past is automatically converted to the new unit.

Setup mode

Setting the record interval   SAMPLE RATE

In primary measurement, the measurement data is recorded in the selected intervals (seconds).

* Stop the measurement and perform the resetting operation (page 26) before you change the record interval. Unless you perform the resetting operation, "**DATA RESET**" appears on the screen, preventing change of the record interval.

* You cannot set the record interval to off.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

> Switch modes : **MENU ▷▷** ◯ (press & hold)

CLOCK

DATE

Current
record interval

2. Switch to "**SAMPLE RATE**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

> Switch screen : ◯ ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ◯

SAMPLE

t - 2s
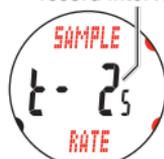
RATE

3. Select "**T-10s** (10 seconds)", "**T-5s** (5 seconds)", "**T-3s** (3 seconds)" or "**T-2s** (2 seconds)" pressing the **MODE1** or **MODE2** buttons.

> **T-10s** ↔ **T-5s** ↔ **T-3s** ↔ **T-2s** : ◯ ◀**MODE1** ◀**MODE2** (or)

SAMPLE

t - 2s
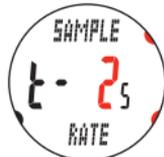
RATE

4. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**SAMPLE RATE**".
Press the **MENU** button repeatedly to switch to another mode.

> To the mode top/switch the mode : **MENU ▷** ◯

* The wristwatch stores up to 36000 points of data, and the maximum record time (maximum time up to the memory point utilization of 100%) depends on the intervals of the seconds selected. The following time lengths can be used as a guideline.

T-10s (at intervals of 10 seconds) : up to 100 hours
T-5s (at intervals of 5 seconds) : up to 50 hours
T-3s (at intervals of 3 seconds) : up to 30 hours
T-2s (at intervals of 2 seconds) : up to 20 hours

* The current memory point utilization can be viewed in the Data mode "File view" (page 39).

Setup mode

Total trip distance/total elapsed time entry TOTAL DATA

You can enter any values to the total trip distance and total elapsed time in the Data mode "Past records" (page 46), then you can start with the values entered.

The total trip distance and total elapsed time can be retained even after formatting the wristwatch or replacing the wristwatch.

* Press and hold the **MODE1** or **MODE2** button to increase/decrease the number quickly.

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

Switch modes : **MENU▶▶** ◯ (press & hold)

CLOCK

DATE

2. Switch to "**TOTAL DATA**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

Switch screen : ◯ **◀MODE1 ◀MODE2** (or)   Confirm : **SSS▶** ◯

TOTAL

DATA

3. For entry, change each digit one by one for the total trip distance by pressing the **MODE1** or **MODE2** button, and move digits by pressing the **SSS** button. (6-digit integer number)
To enter the total trip distance only, proceed to Step 5 after the entry. To enter the total elapsed time at the same time, move digits to the far left, and then proceed to Step 4 by pressing the **SSS** button.

Increase/decrease: ◯ **◀MODE1 ◀MODE2** (or)   Move digits: **SSS▶** ◯

TOTAL

0000₀₀
000 km

Total trip distance

4. For entry, change each digit for the total elapsed time by pressing the **MODE1** or **MODE2** button, and move digits by pressing the **SSS** button.

Increase/decrease: ◯ **◀MODE1 ◀MODE2** (or)   Move digits: **SSS▶** ◯

TOTAL

0000 h
TIME

Total elapsed time

5. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**TOTAL DATA**".
Press the **MENU** button repeatedly to switch to another mode.

To the mode top/switch the mode : **MENU▶** ◯

Setup mode

Setting the auto-mode

Switch on/off of the auto-mode (page 25).

1. Press and hold the **MENU** button in the Clock mode or Sports mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

> Switch modes : **MENU** ▶▶ ◯ (press & hold)

2. Switch to "**AUTO MODE**" pressing the **MODE1** or **MODE2** button, and then confirm it pressing the **SSS** button.

> Switch screen : ◯ ◀**MODE1** ◀**MODE2** (or)   Confirm : **SSS** ▶ ◯

Current setting

3. Select "**ON**" or "**OFF**" pressing the **MODE1** or **MODE2** button.

> **ON** ↔ **OFF**: ◯ ◀**MODE1** ◀**MODE2** (or)

4. Pressing the **MENU** button confirms the change, and returns to the Setup mode "**AUTO MODE**".
Press the **MENU** button repeatedly to switch to another mode.
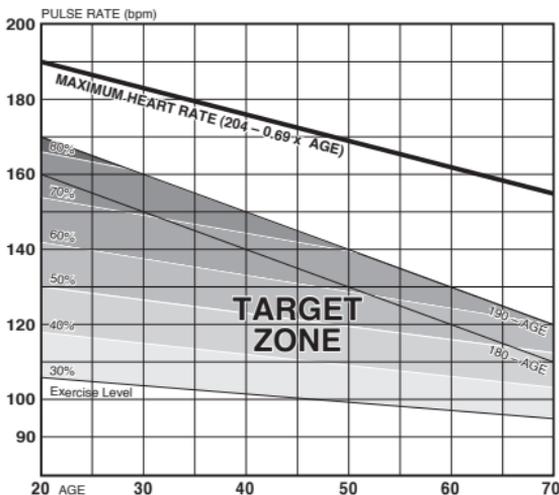
> To the mode top/switch the mode : **MENU** ▶ ◯

Setup mode

Setting sound   SOUND

Switch on/off of the button operation sound and target heart rate zone alarm sound.

1. Press and hold the **MENU** button in the Clock mode or Sports
mode until "**SETUP MENU**" appears on the screen.
It switches to "**CLOCK DATE**" automatically.

> Switch modes : **MENU▶▶** ◯ (press & hold)

CLOCK

DATE

2. Switch to "**SOUND**" pressing the **MODE1** or **MODE2** button,
and then confirm it pressing the **SSS** button.

> Switch screen : ◯ **◀MODE1 ◀MODE2** (or)   Confirm : **SSS▶** ◯

SOUND

3. Select "**ON**" or "**OFF**" of the button operation sound pressing
the **MODE1** or **MODE2** button.
To switch the button operation sound only, proceed to Step
5. To change also the target heart rate zone alarm sound, press
the **SSS** button, and then proceed to Step 4.

> **ON ↔ OFF:** ◯ **◀MODE1 ◀MODE2** (or)   Confirm : **SSS▶** ◯

SOUND

ON

BUTTON

4. Select "**ON**" or "**OFF**" of the target heart rate zone alarm sound
pressing the **MODE1** or **MODE2** button.

> **ON ↔ OFF:** ◯ **◀MODE1 ◀MODE2** (or)

SOUND

ON

ZONE

5. Pressing the **MENU** button confirms the change, and returns
to the Setup mode "**SOUND**".
Press the **MENU** button repeatedly to switch to another mode.

> To the mode top/switch the mode : **MENU▶** ◯

Setup mode

Heart rate training

This section is just a general overview of training with heart rate data. For more complete information, there are books and websites with more in-depth information. Generally, the heart rate increases during exercise, getting higher in conjunction with the intensity of the workout. The measurement of your heart beat is a good indicator of the intensity of your workout. By setting target HR (heart rate) zones and sticking to pre-set exercises, you will be able to work out more efficiently. Before beginning a training program, be sure to first consult a medical specialist or sports trainer.

1 Target heart rate zone

Bicycling is one of the best activities to improve your general fitness. To improve your overall fitness through bicycling, set a target heart rate zone from between 30% and 70% of your maximum HR, depending on your physical strength. For best results, exercise consistently in this zone for periods of at least 20-30 minutes, 3 or more times a week. Obtain your target heart rate zone from either of the 2 ways below.

Training level for improving general fitness

Check the training level according to your age using the graph below. For beginners, it is recommended to start with the level of 30% of your max. From this point, gradually increase the level according to your fitness level and experience. Training at levels over 70% of your HR max will focus more on anaerobic exercise, and less on aerobic exercise. Weight loss usually occurs through longer rides (over 1 hour) at lower HR levels.

PULSE RATE (bpm)

MAXIMUM HEART RATE (204 − 0.69 × AGE)

80%
70%
60%
50%
40%
30%
Exercise Level

TARGET ZONE

180 − AGE
180 − AGE

AGE

Obtaining individual heart rate zone for building up power

Athletic ability is different from person to person. The effective and reasonable target heart rate zone has to be obtained from the actual ride data. A time trial for 20 minutes or 5 km (hereinafter abbreviated as TT) is required to measure the actual data. Perform the TT under the following conditions, according to the specified procedure.

* TT is a training item, in which riders bicycle a specified distance at full speed. The last half is especially a very physically demanding workout. Maintain the pace so that you can ride the specified distance at a stable speed.

Conditions for time trials
For the TT measurement, a continuous ride for 20 minutes is ideal. When such a course that you can ride continuously for 20 minutes is not available, use a 5 km course that you can ride continuously. Measure the course distance in advance, and specify the start and goal points. Repeat the TT twice, and calculate the average of the average heart rates in the 2 sessions, which will be used as an average level for setting the zone.

Procedures for time trial measurements

Caution:
- **Maintain a good physical condition. If you have any worries, consult with a doctor before you attempt any time trial.**
- **Do not perform any TT on a road where many signals are located and the traffic is heavy.**
- **Be sure to pay attention to the road ahead during a TT.**

* Perform a TT in a week which is scheduled with relatively mild training.

* Warm up sufficiently at least for 30 minutes before you attempt any TT.

* Select the manual measurement (on page 26).

1. Stop your bicycle at the start point, and reset the wristwatch.

2. Press the **SSS** button to start the TT.
Gradually accelerate up to a stable speed in the first 1-minute. Keep up the intensity level that you feel is moderately difficult. Set a pace so that you do not slow down in the last half, and maintain the pace to the finish.

3. Once you reach the goal, stop the measurement by pressing the **SSS** button.

4. Cool down for 30 minutes while drinking some water.

5. Repeat the TT once more.
Repeat Steps 1 to 3.

6. Check the measurement data.
Record the average heart rate of two TT data from the Data mode "File view" (page 39). Record the other data (time, average cadence, average speed, etc.) for your reference.

7. Obtain your target heart rate zone from the table below according to the average heart rate recorded.

e.g.) Average heart rate at 20 minutes time trial is 100%.

Heart rate zone level	Lower limit	Upper limit
1 (Active Recovery)	0 %	64 %
2 (Endurance)	65 %	79 %
3 (Tempo)	80 %	90 %
4 (Lactate Threshold)	91 %	101 %
5 (VO2 Max)	102 %	112 %

* An elite ride should set the value 4% lower than those values above.

For example, when the average heart rate at 20 minutes time trial is 175 bpm, the zone is categorized as the table shown below.

Heart rate zone level	Lower limit	Upper limit
1 (Active Recovery)	0	112
2 (Endurance)	114	138
3 (Tempo)	139	158
4 (Lactate Threshold)	159	177
5 (VO2 Max)	178	196

8. Set the calculated value to the heart rate target zone.

* For details of setting the heart rate target zone, see "Setting the target heart rate zones" in Option mode (page 36).

2 Training for competition

Measure your resting heart rate just after waking in the morning and your maximum heart rate (perhaps during competition). Then set your target zone according to your goal:

A) For recovery, endurance training, and weight loss :

60% - 70% (aerobic exercise)

B) For quality endurance and tempo training :

70% - 80% (aerobic exercise)

C) For increasing TT and race ability, and VO2 max :

85% + (anaerobic exercise)

D) For anaerobic capacity and sprinting :

92.5% + (anaerobic exercise)

$$\text{Training level (\%)} = \frac{\text{(Target heart rate) - (Resting heart rate)}}{\text{(Maximum heart rate) - (Resting heart rate)}} \times 100$$

$$\text{Target heart rate} = \text{(Maximum heart rate - Resting heart rate)} \times \frac{\text{Training level (\%)}}{100} + \text{Resting heart rate}$$

Resting heart rate

Your resting heart rate is usually the lowest recorded rate soon after waking up in the morning.

Maximum heart rate

The following calculations are generally used: (220 - age) or (204 - 0.69 x age). For more precise figure, consult a training specialist.

3 Use of the target zone

When the heart rate is out of the zone during the measurement, the wristwatch sounds an alarm and notifies the rider by flashing ☉ . The heart rate zone is selected from 5 predetermined zones.

For a training aiming at a heart rate of 140 to 160 bpm, select HR.**ZONE:3** as shown below. Then, the wristwatch sounds an alarm when the heart rate falls below 140 bpm, or rises above 160 bpm. Once the target zone is set to On, the relevant data are recorded and the time in the zone, time above the zone, and time below the zone and their percentages can be viewed in the file view (page 39).

* The alarm sound is interlocked with the start/stop of the measurement.

* You can enter any upper/lower limit to each zone.

* Select "OFF" of the target heart rate zone, select Zones 1 to 5, change the upper and lower limits, and select "ON" or "OFF" of the zone sound in the Option mode "Setting the target heart rate zones" (page 36). You can select "ON" or "OFF" of the zone sound also in the Setup mode "Setting sound" (page 58).
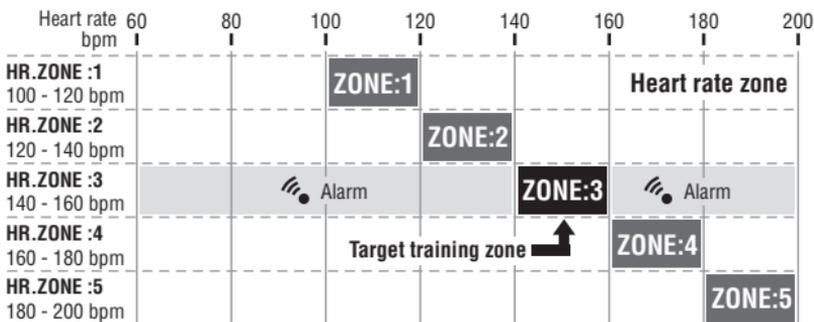
Default zone

Trouble shooting

If a malfunction occurs, check the following before contacting CatEye or your retailer for repair or service.

Trouble on display

Trouble	Check Items	Remedy
Display motion becomes slower.	Is the surrounding temperature low (below zero degree Celsius or 32 degrees Fahrenheit)?	Temperatures below freezing may result in slower screen response. Data is not affected.
🔋 icon appears.	The remaining battery capacity for the wristwatch is low.	Replace it with a new battery (CR2430). After replacement, be sure to perform the restarting operation (page 13).
"**STOP**" appears.	The stop reminder function (page 26) is activated.	Once any sensor signal is received, the stop reminder is canceled. Ignore this during measurement.
"**MEMORY**" icon flashes on the screen every 2 minutes.	The remaining wristwatch memory capacity is low.	It is recommended to delete the files (page 44). * When using the optional "USB communication kit", delete the files after you send the saved files to your PC.
"**MEMORY FULL**" icon flashes on the screen every 2 minutes.	The data volume exceeded the wristwatch memory capacity during measurement.	Measurement data can no longer be recorded. Delete the files (page 44). * When using the optional "USB communication kit", delete the files after you send the saved files to your PC.
No displays appear.	Is the battery for the wristwatch empty?	Replace it with a new battery (CR2430). After replacement, be sure to perform the restarting operation (page 13).
Meaningless display appears.		Perform the restarting operation (page 13).
Cannot measure the current speed or cadence	Is the Speed and Cadence sensor icon on 𝕊 ?	If 𝕊 icon is off, the wristwatch cannot receive any data. Press the **MODE1** or **MODE2** button to cancel the transmission sleep (page 22).
	Check whether the distance between the speed/cadence sensor and the magnet is too large.	Adjust the position of the speed/cadence sensor and that of the magnet correctly. (See "Bicycle Installation" on page 9.)
	Is the sensor zone of the speed/cadence sensor off the center of the magnet?	
	Has the power-saving mode been activated, entering Clock mode?	Press the **MENU** button to switch to Sports mode.
		The display may be delayed depending on the wireless transmission condition. Check whether any speed signal is received by spinning the wheel for a while. * For details, see "Automatic recognition of the speed sensor ID" on page 6.

Trouble	Check Items	Remedy
Cannot measure the current speed or cadence	Is the battery for the speed sensor empty?	Replace it with a new battery (CR2032).
	Did you perform the formatting operation?	The sensor ID was deleted by formatting. Synchronize the speed sensor ID again (page 52).
Measure the current speed, but cannot measure the cadence.	Is the connection on the cadence side of the speed sensor dirty?	The continuity on the cadence side of the speed sensor is bad. Loosen the set screw on the cadence side to remove the cadence sensor. Clean the pins with a dry cloth and replace the sensor. After cleaning, adjust the distance to the magnet, and then firmly secure the sensor.
Heart rate signals are not received.	Is the Heart rate sensor icon on ♥ ?	If ♥ icon is off, the wristwatch cannot receive any data. Press the **MODE1** or **MODE2** button to cancel the transmission sleep (page 22).
	Has the power-saving mode been activated, entering Clock mode?	Press the **MENU** button to switch to Sports mode.
	Is the heart rate sensor attached securely to your body?	Adjust the electrode pad with its rubber surface to have a good contact with the body.
	Dry skin (particularly in winter)	Slightly moisten the electrode pad of the heart rate sensor.
	Is the battery for the heart rate sensor used up?	Replace it with a new battery (CR2032).
	Check whether 🔋 lights up on the wristwatch screen.	The remaining battery capacity of the wristwatch is low. Replace it with a new battery (CR2430). After replacement, be sure to perform the restarting operation (page 13).
	Is the electrode pad overly worn and damaged after long use?	Replace it with a new heart rate sensor.
	Did you perform the formatting operation?	The sensor ID was deleted by formatting. Synchronize the heart rate sensor ID again (page 52).
Fluctuation in the heart rate indicator, for example it returns to zero and then the heart rate is measured again.	Is the electrode pad being worn correctly?	To wear the electrode pad correctly, follow the instructions for wearing the heart rate sensor (page 12).
Moving the main unit away from your body will prevent measurement of the heart rate.	Check whether 🔋 lights up on the wristwatch screen.	The remaining battery capacity of the wristwatch is low. Replace it with a new battery (CR2430). After replacement, be sure to perform the restarting operation (page 13).
	Is the battery for the heart rate sensor used up?	Replace it with a new battery (CR2032).
Some values in the Data mode "Past records" have been reset.	Did you change any date in the past according to "Setting the clock/date"?	Some values for the year, month, or week are deleted according to the relevant changes. For details, see page 47.

Trouble on operation

Trouble	Check Items	Remedy
Pressing and holding the **MODE1** or **MODE2** button does not turn on a light.	Check whether the Setup mode is displayed (page 48).	The backlight does not turn on in the Setup mode.
	Check whether ▭ lights up on the wristwatch screen.	The remaining battery capacity of the wrist-watch is low. Replace it with a new battery (CR2430). After replacement, be sure to per-form the restarting operation (page 13).
Pressing the **SSS** button does not start/stop mea-surement.	Check whether the auto-mode is turned on (with AT illuminating).	When the auto-mode is on (AT icon appears), you cannot start or stop the measurement by pressing the button. To start/stop measurement by pressing the **SSS** button, switch the auto-mode to off (page 57).
The heart rate sensor (speed sensor) ID check failed.		The battery for the heart rate sensor (speed sensor) is possibly depleted. After replacing the battery with a new one (CR2032), check the sensor ID again (page 52).
Lap data cannot be stored.	Check whether "--" appears for the Lap No. screen.	The data volume exceeds the wristwatch memory capacity. Delete the files (page 44). * When using the optional "USB communica-tion kit", delete the files after you send the saved files to your PC.
	Does the lap time exceed 100 hours (or the interval distance exceed 9999.99 km/mile) ?	Laps cannot be measured, if recordable range described on the left is exceeded. Reset the data (page 26), and then perform measurement again.
	Is it immediately after press-ing the **LAP** button?	Recording laps needs at least 5 seconds of interval.
Abnormal values appear.	Are there any objects emitting electromagnetic waves (railway tracks, transmitting stations for television, etc.) nearby?	Keep the unit away from any object that may be causing interference, and reset the data (page 26).
Any setting cannot be changed in Option mode or Setup mode.	Is it during measurement?	Settings can be only viewed during the mea-surement.
	Check whether the auto-mode is on (AT lights up).	When the auto-mode is on (AT lights up), the wristwatch may enter measurement mode due to electromagnetic waves. Keep the unit away from any object that may be causing interfer-ence with electromagnetic waves.
	Check whether "**DATA RESET**" is displayed.	To change the target heart rate zone, measure-ment unit, and record interval, the resetting operation is required. Stop the measurement, and perform the resetting operation (page 26).
The record data in the File view cannot be viewed to the end.	Check whether "**MEMORY FULL**" is displayed on the screen during measurement.	The data volume exceeds the wristwatch memory capac-ity. The data was saved automatically during measure-ment, and any subsequent data was no longer recorded. Delete the files for subsequent measurement (page 44). * When using the optional "USB communica-tion kit", delete the files after you send the saved files to your PC.

Water resistance of the wristwatch

The wristwatch is water-resistant up to 100 feet (30 meters). Refer to the following for proper use.

Before aquatic and outdoor activities

Caution:

- The heart rate sensor and speed sensor are waterproof, but should not be used for underwater activities.
- Wash with pure water and wipe off any salt and dirt, after using in seawater or outdoors.
- Do not press any button when wet.

		Waterproof Capability
	Rain, splash, etc.	**OK**
	Shower (hot water, and cold water)	**OK**
	Mild swimming (water depth: shallow)	**OK**
	Diving, surfing, and other marine sports (water depth: shallow)	**NO!**
	Snorkeling (water depth: deep)	**NO!**

Replacing battery

The Q3 comes with factory-installed batteries. When a battery is empty, replace it with a new one according to the following instructions.

> ⚠ **Warning!!!: Safely dispose of the old batteries, and do not place them within reach of children. If a battery is swallowed, consult a doctor immediately.**

* When any battery for the wristwatch, heart rate sensor, or speed sensor is depleted, we recommend replacing all batteries at the same time.
* The battery life shown in this manual is not definitive and it varies depending on the use environment.
* The battery cover sealing is critical to maintain the waterproof feature. When the battery cover and the o-ring are dirty, wipe off carefully and check that it is installed properly.

Wristwatch

Battery life: Approx. 1 year when used for 1 hour per day.

* When the remaining battery capacity is low, 🔋 lights up.

1. Open the battery cover of the wristwatch using a coin, etc.

2. Turn the inner cover to the open position using a coin, remove this, and insert a new lithium battery (CR2430) with the (+) side up.

   * Do not turn the inner cover excessively. Otherwise, the tab may be damaged.

3. Turn the inner cover to the closed position. Check that the cut-out portion of the inner cover faces the pin, and the 2 tabs are fixed.

4. Press the **AC** button beside the inner cover using a tool with a pointed tip.

5. Check that an o-ring is installed to the groove on the wristwatch, and firmly close the battery cover.

6. After replacement, be sure to perform the restarting operation (page 13) to set the current time and date.

Battery cover
Open
Close
Open position
Inner cover
CR2430
Tab
Closed position
Pin
Cut-out portion
Pin
O-ring
AC button
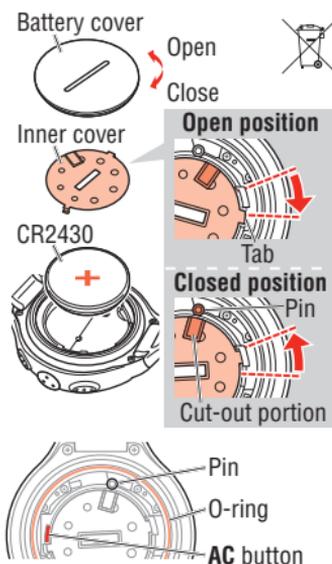
Heart rate sensor

Battery life: Approx. 1 year when worn for 1 hour per day.

1. Remove the battery cover on the back of the heart rate sensor using a coin, or the equivalent.

2. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.

* The heart rate sensor consumes power when worn. Remove the heart rate sensor whenever measurement is not performed.
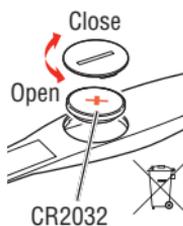
Close
Open
CR2032

Speed sensor

Battery life: Approx. 1 year when used for 1 hour per day.

1. Remove the battery cover on the speed sensor using a coin, or the equivalent.

2. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.

3. After replacing batteries, be sure to check that the positions of the magnet and sensor are correct and they are secured firmly.

CR2032
Close
Open
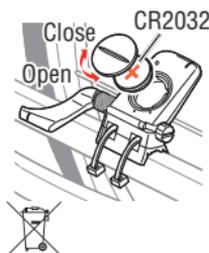
Maintenance

Regularly perform the following instructions to prolong the life of your Q3.

- Regularly check that the positions of the magnets and sensors are correct, and they are secured firmly.
- When the wristwatch, heart rate sensor, and speed sensor are dirty, wash them with water or wipe them with a soft cloth dampened with diluted neutral detergent, then wipe with dry cloth. Do not use solvents such as benzine or rubbing alcohol as they may damage the surfaces.
- The heart rate strap absorbs sweat easily, and leaving it as such is unsanitary. Wash with neutral detergent and keep it clean.

Spare accessories

Standard accessories

#240-0570
Parts kit
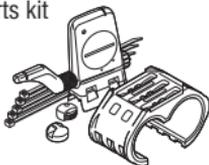
#160-2385N
Speed sensor kit

#240-0575
Bracket Handlebar-mount

#160-2390N
Heart rate sensor kit

#160-2395
HR Strap

#169-9691
Wheel magnet

#169-9766
Cadence magnet

#240-0580
Lithium-battery (CR2430)
for wristwatches

#166-5150
Lithium-battery (CR2032)
for sensors

Optional accessories

#240-0590
USB communication kit
(included with the Windows version of e-Train Data™)

Flow of the screen

M1	
Maximum speed	
Maximum heart rate	Maximum cadence
Elapsed time	

Current speed		M2	Current speed		M2	Current speed	
Heart rate	Cadence		Heart rate	Cadence		Heart rate	Cadence
Lap timer		M2	Calorie Consumption		M2	Clock	

TIRE	M1	SYNC ID	M1	UNITS
Setting the tire circumference	M2	Setting the sensor ID	M2	Setting the measurement unit

M2 ↑ ↓ M1

AUTO MODE	M2	TOTAL DATA	M2	SAMPLE RATE
Setting the auto-mode	M1	Total trip distance/total elapsed time entry	M1	Setting the record interval

* Training function: Displays one of the following: countdown distance, countdown time, and interval.

VIEW LOG
Log data

M2

M1
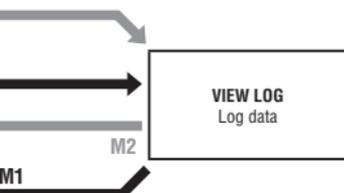
Specifications

Measurement function

Upper display

Current speed	0.0 (4.0) – 150.0 km/h 0.0 (3.0) – 93.0 mph (For 27-inch tire size)
Average speed	0.0 – 150.0 km/h [0.0 – 93.0 mph]
Maximum speed	0.0 (4.0) – 150.0 km/h [0.0 (3.0) – 93.0 mph]
Average lap speed	0.0 – 150.0 km/h [0.0 – 93.0 mph]
Maximum lap speed	0.0 (4.0) – 150.0 km/h [0.0 (3.0) – 93.0 mph]

Middle display

Heart rate	0 (30) – 240 bpm
Average heart rate	0 – 240 bpm
Maximum heart rate	0 (30) – 240 bpm
Average lap heart rate	0 – 240 bpm
Maximum lap heart rate	0 (30) – 240 bpm
Cadence	0 (20) – 199 rpm
Average cadence	0 – 199 rpm
Maximum cadence	0 (20) – 199 rpm
Average lap cadence	0 – 199 rpm
Maximum lap cadence	0 (20) – 199 rpm
Lap number	01 – 99

Lower display

Elapsed time	0:00'00"0 – 0:59'59"9 / 1:00'00" – 99:59'59"
Trip distance	0.00 – 9999.99 km [mile]
Countdown distance	9999.90 – 0.00 km [mile] (setting range : 9999.9 – 0.0 km [mile])
Countdown time	99:59'00" – 0:00'00" (setting range : 99:59' – 0:00')
Interval timer	99:59'59" – 1:00'00" / 0:59'59"9 – 0:00'00"0 (setting range : 99:59'59" – 0:00'00")
Recovery time	0:00'00"0 – 0:59'59"9 / 1:00'00" – 99:59'59"
Lap timer	00'00"0 – 0:59'59"9 / 1:00'00" – 99:59'59"
Calorie consumption	0 – 999999 kcal (calculation-based estimation only)
Clock	0:00'00" – 23:59'59" [AM 1:00'00" – PM 12:59'59"] (Both 12 and 24-hour modes can be selected)
Date	00.01.01 – 99.12.31 (display format can be switched)
Lap time	00'00"0 – 0:59'59"9 / 1:00'00" – 99:59'59"
Split time	00'00"0 – 0:59'59"9 / 1:00'00" – 99:59'59"

Lap (With the real time lap function)

Lap display:
    Upper display (average lap speed, maximum lap speed)
    Middle display (average lap heart rate, lap number, maximum lap heart rate)
    Lower display (lap time, split time)
Real time lap display:
    Upper display (average lap speed, maximum lap speed)
    Middle display (average lap heart rate, maximum lap heart rate, cadence)
    Lower display (lap timer, lap distance)

Interval	
Upper display	(current speed, average speed, and maximum speed)
Middle display	(current heart rate, average heart rate, maximum heart rate, current cadence, average cadence, and maximum cadence)
Lower display	(interval time, number of intervals, trip distance in an interval, and recovery time)

Saving the data
    Saves the data at the time of resetting
    (The oldest file will be deleted automatically when exceeding 30 files)
    (The oldest file will be deleted and the data during the measurement will be saved automatically when "**MEMORY FULL**" is displayed.)

Control system
    8 bit one-chip microcomputer, crystal oscillator

Display system
    Liquid crystal display (EL backlight)

Speed/Cadence sensor signal detection system
    Noncontact magnetic sensor

Sensor signal transmission and reception
    2.4 GHz ISM Band (With ID. Two IDs of **SP1** and **SP2** can be set for the speed sensor.)

Sensor coverage distance
    5 m (above 5 m, transmission distance may vary due to environmental conditions)

Operating temperature range
    32 °F – 104 °F [0 °C – 40 °C]
    (This product will not function appropriately when exceeding the working temperature range. Slow response or black LCD at lower or higher temperature may happen respectively.)

Storage temperature range
    -4 °F – 122 °F [-20 °C – 50 °C]

Wheel circumference set range
    0100 to 3999 mm: 1 size for each speed sensor ID (default setting: **SP1** = 2096, **SP2** = 2050)

Power supply/battery life
Wristwatch	: CR2430 x 1 / Approx. 1 year (When using 1 hour/day)
Heart rate sensor	: CR2032 x 1 / Approx. 1 year (When worn about 1 hour per day)
Speed sensor	: CR2032 x 1 / Approx. 1 year (When using 1 hour/day)

Dimensions/Weight
Wristwatch	: 55.0 x 46.5 x 15.0 mm (excluding the projection and belt) / 56.4 g (With batteries)
Heart rate sensor	: 12-13/16" x 1-1/4" x 1/2" (325.0 x 31.4 x 12.2 mm) / 1.41 oz (40 g) (With batteries)
Speed sensor	: 2-9/16" x 3-9/16" x 9/16" (65.0 x 90.5 x 14.4 mm) / 1.25 oz (36 g) (With batteries)

* When the elapsed time exceeds 100 hours, or the trip distance exceeds 9999.99 km/h, "**E**" appears in place of the average speed.

* When the elapsed time exceeds 100 hours, "**E**" appears in place of the average heart rate and average cadence.

* Designs and specifications are subject to change without notice, due to modifications or improvements.

Registration

CATEYE Web Site (http://www.cateye.com)

For warranty service you must register your product. Please register your Q3 as soon as possible. CATEYE provides regular technical support and new product information as much as possible. Please register on-line through the "Support" page on our web site. You will need the product's 7 -digit number (marked on the battery cover) to register your product.

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Limited warranty

2-Year: wristwatch, heart rate sensor and speed sensor
(Not including depletion of batteries)

CatEye products are warranted to be free of defects from materials and workman-ship for a period of two years from original purchase. If the product fails to work during normal use, CatEye will repair or replace the defect at no charge. Service must be performed by CatEye or an authorized retailer. To return the product, pack it carefully and enclose the warranty certificate (proof or purchase) with instruction for repair. Please write or type your name and address clearly on the warranty certificate. Insurance, handling and transportation charges to CatEye shall be borne by person desiring service.

For UK and REPUBLIC OF IRELAND consumers, please return to the place of purchase. This does not affect your statutory rights.

Index

REGISTRATION CARD ユーザー登録カード

Fiche d'enregistrement — Registratiekaart — Scheda di registrazione
Registrierungskarte — Tarjeta de registro — 用戶登記卡 — 用户登记卡

CATEYE®

Name
お名前(フリガナ)
Nom — Nome
Name — 姓名
Naam — 姓名
Nombre

Serial No ❶
シリアルNo
No. de série
Seriennr — Numero di matricola
Seriennummer — 產品編號
Nº de serie — 产品编号

Address
ご住所
Adresse — Indirizzo
Adresse — 地址
Adres — 地址
Dirección

Phone
電話番号
Téléphone — Numero di telefono
Telefon — 電話號碼
Telefoon — 电话号码
Teléfono

E-mail address
Eメールアドレス
Adresse e-mail — Indirizzo e-mail
E-mail-Adresse — 郵箱地址
E-mailadres — 邮箱地址
Dirección de correo electrónico

Dealer or Shop name
ご購入店名
Nom du magasin ou du revendeur — Nome del punto vendita
Name des Händlers oder des Geschäfts — 經銷商名
Dealer of Naam van winkel — 经销商名
Nombre del proveedor o de la tienda

Dealer or Shop address
所在地
Adresse du magasin ou du revendeur — Indirizzo del punto vendita
Adresse des Händlers oder des Geschäfts — 經銷商地址
Dealer of Adres van winkel — 经销商地址
Dirección del proveedor o de la tienda

The date of purchase
ご購入日
Date d'achat — Data di acquisto
Kaufdatum — 購入日期
Datum van aankoop — 购入日期
Fecha de compra

/   /

Your name address or e-mail address will not be sold or shared with any other company.
ご送信いただいた情報や内容の管理には万全を期し、新製品情報やテクニカルサポート提供以外に使用することは一切ありません。
Votre adresse postale et votre adresse e-mail ne seront pas vendues ou transmises à d'autres entreprises.
Ihr Name oder Ihre E-Mail-Adresse wird weder verkauft noch an eine andere Firma weitergegeben.
Uw naam, adres of e-mailadres zullen niet beschikbaar worden gesteld aan derden.
Su nombre, dirección o correo electrónico no serán vendidos o compartidos con otras empresas.
Ill vostro nome, indirizzo o e-mail non saranno venduti o condivisi con altre società.
顧客情報內容將被妥善管理，只會使用在提供新產品信息及技術支援上。
顾客情报内容将被妥善管理，只会使用在提供新产品信息及技术支援上。

✂

INTERNATIONAL WARRANTY CERTIFICATE 保証書

CERTIFICAT DE GARANTIE INTERNATIONALE — INTERNATIONAAL GARANTIECERTIFICAAT — CERTIFICATO DI GARANZIA INTERNAZIONALE
INTERNATIONALES GARANTIEZERTIFIKAT — CERTIFICADO DE GARANTÍA INTERNACIONAL — 國際保固證明書 — 国际保固证明书

CATEYE®

PURCHASER'S NAME/ADDRESS
ご住所・お名前
NOM/ADRESSE DU CLIENT
NAME UND ANSCHRIFT DES KÄUFERS
NAAM/ADRES KOPER
NOMBRE/DIRECCIÓN DEL COMPRADOR
NOME/INDIRIZZO DEL COMPRATORE
購買者的姓名／地址 购买者的姓名／地址

Serial No ❶

DEALER'S NAME/ADDRESS
販売店名・住所
NOM/ADRESSE DU DISTRIBUTEUR
NAME UND ANSCHRIFT DES HÄNDLERS
NAAM/ADRES VERKOPER
NOMBRE/DIRECCIÓN DEL DISTRIBUIDOR
NOME/INDIRIZZO DEL VENDITORE
經銷商的姓名／地址 经销商的姓名／地址

DATE OF PURCHASE
お買い求め年月日
DATE D'ACHAT
VERKAUFSDATUM
AANKOOPDATUM
FECHA DE COMPRA
DATA DELL'ACQUISTO
購買日期 购买日期

/   /

DIGITAL
2.4G

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066600820 CY200ENG **1**